

CLEANING and WELDING SOLUTIONS



MAKING GREEN WORK.

CLEANING SOLUTIONS

CLEANING and WELDING

– For us, this means system solutions

The Bio-Circle premium products offer customized solutions for Cleaning, Welding, Protecting, Lubricating, and Cleaning Systems. The Cleaning Systems are optimally suited for use in parts cleaning and the cleaning of pipes, heat exchangers, plastic injection moulding tools or spray guns.

At Bio-Circle Surface Technology GmbH, the products have been developed and manufactured in the R & D department and distributed world-wide by our expert staff for more than 30 years, with a focus on our core competences: energy efficiency, reduction of hazardous substances, VOC-free/-reduced products, and service for our systems. Our global team of experts provides excellent service and creates added value in the various industrial businesses in a sustainable way.

MAKING GREEN WORK.

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Our know-how:

- ▶ Qualified and personal technical advice provided by our sales reps in the field
- ▶ Comprehensive customer service through our telephone hotline for all questions and application tips regarding our products, and support for compliance with regulations
- ▶ Our own research department in the field of chemistry and biotechnology develops innovative products that meet the highest standards in safety and environmental protection
- ▶ Sustainable and energy-conscious production at our production site in Gütersloh, which has been certified in accordance with ISO 14.001
- ▶ High product quality and shortest possible delivery times



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- 102** SURFOX Marking Kit/Marking Kit PRO

Our products are divided

into the following chapters that are
colour-coded for easy reference:

■ Cleaning

■ Cleaning systems

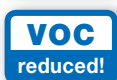
■ Protecting

■ Lubricating

■ Welding and SURFOX



Nature Boost – optimal performance, employee protection and reduction of environmental impacts. Successful cleaning in the industry with the power of Nature. Nature Boost cleaners are based on renewable raw materials. They stand out for their excellent dissolving powers, especially with strong greases, oils, adhesives and also paint and inks. What makes the efficacy of Nature Boost even more impressive is that it is also non-combustible, VOC-free, not subject to mandatory labelling, and renewable.



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. For a variety of highly volatile solvents, such as acetone or ethyl acetate, we offer alternatives for fulfilling the reduction schedule.



Clean Blue – energy efficiency

In times of increasing energy costs and limited resources, the efficient use of energy is gaining more and more importance in all sectors. 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. The cleaners can be used flexibly at all temperatures, parts can be measured in a timely manner, freshwater consumption is reduced, and the risk of surface drying on the parts is lower.



Reduction of hazardous substances

With efficient systems and non-hazardous products we manage to optimize the processes at our customers'. In spite of the cleaning being non-hazardous, the quality of the cleaning result is maintained. No more time-consuming, costly handling of hazardous substances. Hazardous substances warehouses, hazardous substances trainings, and compiling operating and instruction manuals are no longer required. The employees' health and the environment are protected. Even apprentices are allowed to handle the products. Efficient, high-quality work is possible.



NSF – Cleaning in the foodstuffs industry

In Germany, cleaning in the foodstuffs industry is subject to the German Food, Consumer Goods and Feed Code (LFGB). According to sec. 2 LFGB, cleaning agents are consumer goods. It is prohibited to put consumer goods in circulation that contain substances that may pass over to foodstuffs or their surfaces. The 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.

Finding the right cleaner

in three easy steps:

The Bio-Circle App



CLEANING
SOLUTIONS

CLEANING



Sustainable – Efficient cleaning in the industry

MAKING GREEN WORK.



The perfect solution to any cleaning requirement

Cleaning work is virtually indispensable in most industries. Whatever the field – maintenance, plastic injection moulding, foodstuffs, transportation, traffic, logistics, automotive, CNC, crafts, energy, agricultural engineering or forestry-contaminations are a universal issue. Our constant aim as a manufacturer is to meet the ever-increasing requirements and to find the best possible cleaning methods for our customers. Our cleaning products help every industrial business save time and maintain quality at a high level, and to simplify and cost-optimize the process within the value chain. More than 80 % of our cleaner volume is no labelling required under the CLP Regulation. The cleaning power is enormous, and the cleaners are versatile. They are advocates for issues such as occupational health and safety, eco- and user-friendly applications, and the reduction of hazardous substances on the shop floor.

The right cleaner

pH	1	Acidic cleaners Oxidation Rust Minerals	Power Cleaner 300 Dissolver US Power Cleaner DB E-NOX Clean E-NOX-I Power Cleaner 200 Limescale Barracuda	Battery acid Gastric acid Vinegar Cola Coffee Beer, wine Saliva
			Neutral cleaners Oil, grease	Distilled water Seawater
			FT 100 Multi-Clean UNO W UNO S FOR CLEAN	Baking powder
14		Alkaline cleaners Oil, proteins, grease, wax, resin	ALUSTAR 200 ALUSTAR 300 CB 100	Liquid ammonia Soapsuds
			STAR 200 STAR 300 Smoke Resin Remover Smoke Resin Remover DB Hair Remover Drain-Free	

Which cleaner is the right one for you?

As a rule, cleaning products are divided into water-based cleaners and solvents. Depending on their applications, the aqueous cleaning agents are adjusted to neutral, alkaline or acidic. There is however some overlapping in the fields of application of the neutral, alkaline and acidic cleaning agents.

Acidic cleaners:

Cleaners that contain acidic components. They are used to remove rust, moss, algae and limescale, and to dissolve deposits from metallic surfaces.

Neutral cleaners:

Alkaline- or acid-free cleaning agents that are mainly used where consideration for the human skin or sensitive items to be cleaned is required.

Alkaline cleaners:

Cleaning agents that contain alkaline components. They are mainly used to remove grease-, oil- and protein residues.

CLEANING

CB 100

Efficient cleaner made from renewable raw materials

- ▶ Water-based, phosphate- and solvent-free cleaner, low-foaming
- ▶ For the removal of strong contaminations, such as special greases that are difficult to remove, rubber marks, bitumen- and wax residues, oils and pastes
- ▶ Maintenance of engines
- ▶ Strong dissolving power with constantly good cleaning performance over a long time
- ▶ Long service life
- ▶ Recyclable
- ▶ Replacement of paraffin and solvents
- ▶ No labelling required under the CLP Regulation
- ▶ For manual and mechanical use

A50025 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01025 10 L jerrycan

A03025 30 L jerrycan

A20025 200 L plastic drum

A10025 1000 L IBC



Nonfood Compounds
Program Listed (C1)
Registration # 146719

CB 100 Alu

Cleaner and degreaser with special aluminium formula

- ▶ Protects aluminium and brass
- ▶ For manual and mechanical cleaning
- ▶ No tarnishing of materials on components and such
- ▶ High dissolving power for persistent greases and contaminations
- ▶ Efficient corrosion protection
- ▶ Good cleaning results even at ambient temperature
- ▶ Can be heated to 40 °C/104 °F
- ▶ Replacement of paraffin in cleaning
- ▶ No labelling required under the CLP Regulation

A50049 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01049 10 L jerrycan

A03049 30 L jerrycan

A20049 200 L plastic drum

A10049 1000 L IBC



CB 100 LR CB 100 Alu LR

Residue-reduced cleaner

- ▶ Optimized formulation
- ▶ Consistent performance, fewer residues
- ▶ Perfect for circulation systems with long service lives
- ▶ No labelling required under the CLP Regulation

CB 100 LR

A01085 10 L jerrycan

A03085 30 L jerrycan

A20085 200 L plastic drum

A10085 1000 L IBC

CB 100 Alu LR

A01036 10 L jerrycan

A03036 30 L jerrycan

A20036 200 L plastic drum

A10036 1000 L IBC



Nature Boost – Green Corner

Optimal performance – Employee protection – Reduction of environmental impacts

Nature Boost – successful cleaning in the industry with the power of Nature. Nature Boost cleaners are based on renewable raw materials. They stand out for their excellent dissolving powers, especially with strong greases, oils, adhesives and also paint and inks. In addition they are recyclable, non-combustible, VOC-free or -reduced, and not subject to mandatory labelling. The cleaners have a long service life with a constantly high cleaning performance.

CB 100 Blue

Low-foaming, energy-efficient cleaner (Clean Blue)

- ▶ Water-based cleaner with high dissolving power
- ▶ Low-foaming
- ▶ For the removal of strong contaminations, such as special greases that are difficult to remove, rubber marks, bitumen- and wax residues, oils and pastes
- ▶ For mechanical and manual cleaning
- ▶ Perfect for cleaning machines
- ▶ Eco- and user-friendly
- ▶ No labelling required under the CLP Regulation

GS 200

Label-free cleaner with extremely high dissolving power

- ▶ An alternative to VOC-containing and/or irritant solvents
- ▶ For the removal of very strong contaminations, such as oils and greases, bitumen, lubricants, anti-corrosion waxes, resins, rubber residues and -marks, and paint
- ▶ For the removal of burnt-in oil layers from gearboxes and motors
- ▶ For the removal of protective film- and adhesive residues
- ▶ High flash point (> 100°C/212°F)
- ▶ Very economical



A01032 10 L jerrycan

A03032 30 L jerrycan

A20032 200 L plastic drum

A10032 1000 L IBC

A50065 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01065 10 L jerrycan

A03065 30 L jerrycan

A20065 200 L metal drum

A10065 1000 L IBC



Nonfood Compounds
Program Listed (K3)
Registration # 146720

CLEANING
SOLUTIONS

CLEANING

FOR CLEAN – high cleaning performance • can be used anywhere
• safe to use • helps reduce environmental stress

high cleaning performance	safe to use	can be used anywhere	helps reduce environmental stress
<p>Powerful against mineral oils, vegetable oils and greases, cooling lubricants and cutting oils, protein incrustations, and soot</p> <p>Highly concentrated, individual dilution ratios guarantee customized cleaning solutions for each user's application.</p>	<p>No labelling required under the CLP Regulation</p> <p>NTA-free</p> <p>Neutral to slightly alkaline pH value</p> <p>No preservatives</p> <p>Pleasant to use – also when spraying</p>	<p>For manual applications</p> <p>Gentle on surfaces made of metal, plastics, wood, ceramics, rubber, and many more</p> <p>Compatible with oil separators</p>	<p>No silicate, no phosphate</p> <p>VOC-free</p> <p>Cleans at ambient temperature already – Clean Blue</p> <div><div>VOC free!</div><div>CLEANBLUE</div></div>



Easy cleaning: FOR CLEAN



The new cleaners of the Bio-Circle FOR CLEAN range stand for powerful and environmentally compatible cleaning. The products solve the cleaning tasks of industrial cleaning and can be used in manual as well as in mechanical cleaning. They have been developed on the basis of the latest raw material trends, they work effectively at low temperatures, and of course they also do not require any labelling in accordance with the new CLP Regulation. The performance package is perfected by the universal applicability of these innovative cleaners.

FOR CLEAN

Eco-friendly cleaner

- ▶ Powerful cleaner
- ▶ Removes mineral oils, vegetable oils and greases, machining oils, food residues, protein incrustations, and soot
- ▶ For manual use
- ▶ Neutral to alkaline pH value
- ▶ Highly concentrated
- ▶ No labelling required under the CLP Regulation

A50080 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01080 10 L jerrycan

A03080 30 L jerrycan

A20080 200 L plastic drum

A10080 1000 L IBC

FOR CLEAN F

Neutral all-rounder

- ▶ Low-foaming cleaner
- ▶ Ideally suited for use in pressure washers, floor cleaning systems, wet extraction installations, hand-held cleaning devices
- ▶ Can be used wherever foam is disruptive
- ▶ Removes machining oils, lubricants, and residues
- ▶ Can be used on aluminium surfaces
- ▶ Water-miscible up to 1:100
- ▶ No labelling required under the CLP Regulation
- ▶ For manual and mechanical use

A50013 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01013 10 L jerrycan

A03013 30 L jerrycan

A20013 200 L plastic drum

A10013 1000 L IBC

FOR CLEAN V

Cleaning gel for perpendicular surfaces

- ▶ Slightly viscous cleaning gel
- ▶ Very good adhesion to surfaces
- ▶ Ideal for cleaning perpendicular or sloping surfaces
- ▶ High-foaming
- ▶ For the removal of strong contaminations, such as oils, greases, waxes, resins, nicotine, flyspeck and food residues
- ▶ No labelling required under the CLP Regulation

A50022 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01022 10 L jerrycan

A03022 30 L jerrycan

A20022 200 L plastic drum

A10022 1000 L IBC

CLEANING SOLUTIONS

CLEANING

UNO

Water-based universal cleaner

- ▶ For cleaning and degreasing
- ▶ Universally applicable in the cleaning of industrial and mechanical facilities in the entire industry
- ▶ Removes oil, grease and protein residues from surfaces made of metal, wood, plastic, ceramics and many more
- ▶ Compatible with oil separators
- ▶ Ideal for low-temperature cleaning
- ▶ For manual and mechanical use (e.g. in pressure washers and ultrasonic cleaning devices)

Please note:
Do not use the concentrated cleaner on aluminium and zinc coatings!

A50001 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01001 10 L jerrycan

A03001 30 L jerrycan

A20001 200 L plastic drum

A10001 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2



Nonfood Compounds
Program Listed (A1)
Registration # 141943



The UNO range



The water-based, alkaline universal cleaners are phosphate- and VOC-free. The cleaners work on the basis of detergent substances (surfactants) that by reducing the surface tension dissolve the residues from the surfaces to be cleaned. The VOC-free cleaners are compatible with oil separators and also work optimally at low temperatures (Clean Blue). The cleaning solution remains powerful and active for a long time. Cleaning and degreasing turns into a neat piece of work.

UNO F

Low-foaming universal cleaner

- ▶ Water-based alkaline cleaner
- ▶ For the removal of oils, greases and other contaminations
- ▶ Especially for mechanical use
- ▶ Universally applicable in the cleaning of industrial and mechanical facilities in the entire industry and in the home and hobby sector

A50031 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01031 10 L jerrycan

A03031 30 L jerrycan

A20031 200 L plastic drum

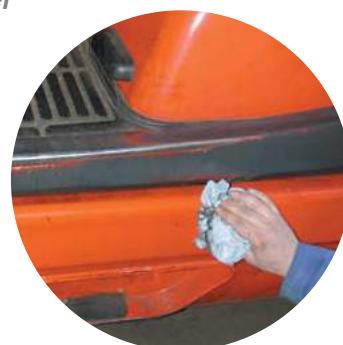
A10031 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

UNO PF

Low-foaming universal cleaner with corrosion protection

- ▶ For the removal of oils, greases and protein residues
- ▶ For manual and mechanical use
- ▶ Can be used concentrated or diluted with water up to 1:40
- ▶ Non-combustible
- ▶ Phosphate-free



A50030 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01030 10 L jerrycan

A03030 30 L jerrycan

A20030 200 L plastic drum

A10030 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2



CLEANING SOLUTIONS

CLEANING

UNO S

Phosphate-free intensive cleaner

- ▶ Removes resinified oils, greases, pigmented inks and other contaminations
- ▶ For the removal of releasing agent- and plastic residues from tools and moulds in the plastics industry
- ▶ Manual and mechanical cleaning with ultrasonic devices, and degreasing in the metal-working industry
- ▶ Good wetting effect, acts fast and in depth
- ▶ Excellent dissolving power already at ambient temperature
- ▶ Highly concentrated, can be diluted with water up to 1:40

Please note:
Do not use the concentrated cleaner on aluminium and zinc coatings!

A50043 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01043 10 L jerrycan

A03043 30 L jerrycan

A20043 200 L plastic drum

A10043 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2



UNO S F

Low-foaming cleaner and degreaser

- ▶ Low-foaming, water-based cleaner
- ▶ Highly concentrated and alkaline
- ▶ For the removal of vegetable and mineral oils and greases, protein residues, releasing agents, smoke residues and waxes, fresh paint residues and pigmented inks
- ▶ Non-combustible, phosphate-free
- ▶ For mechanical use

A50035 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01035 10 L jerrycan

A03035 30 L jerrycan

A20035 200 L plastic drum

A10035 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2



UNO S range



The strong version of the UNO range acts fast and in depth. The VOC-reduced, water-based intensive cleaners are phosphate-free. They can be used wherever tenacious contaminations have to be removed. They are material-friendly, feature good wetting properties and strong cleaning power, and are suitable for manual and mechanical use. If you want to clean without solvents and CHCs, you will find that UNO S, UNO SF, UNO S PF and UNO SV are suitable substitutes.

UNO S PF

Low-foaming cleaner for corrosion-sensitive parts

- ▶ Water-based, alkaline cleaner with corrosion protection
- ▶ Removes resinified oils, greases, pigmented inks and other contaminations
- ▶ Perfect cleaning performance already at ambient temperature
- ▶ Cleaning and degreasing in the metalworking industry
- ▶ For the removal of releasing agent- and plastic residues from tools and moulds in the plastics industry
- ▶ Cleaning of flat screen- and rotary printing machines
- ▶ Maintenance of engines and gearboxes

A50050 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01050 10 L jerrycan

A03050 30 L jerrycan

A20050 200 L plastic drum

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

UNO S V

Intensive cleaner for perpendicular or sloping surfaces

- ▶ Water-based, highly concentrated
- ▶ For the removal of vegetable and mineral oils and greases, protein residues, releasing agents, smoke residues and waxes, fresh paint residues and pigmented inks
- ▶ Non-combustible
- ▶ Perfect adhesion to perpendicular surfaces

A00134 1000 mL plastic bottle with trigger

Trading unit: 10 x 1000 mL (1 box)

A01034 10 L jerrycan

A03034 30 L jerrycan

A12034 120 L plastic drum

A20034 200 L plastic drum

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2



CLEANING SOLUTIONS

CLEANING

UNO X

*Gel foam cleaner for
tenacious contaminations*

- ▶ Water-based, phosphate- and VOC-reduced
- ▶ For manual application
- ▶ High-foaming
- ▶ Long contact time, also on perpendicular surfaces
- ▶ Extremely powerful
- ▶ For the removal of oil, carbon deposits, grease, soot and highly adherent environmental grime
- ▶ For the cleaning and degreasing of e.g. steel/stainless steel, iron, castings, plastics, rubber and varnished surfaces
- ▶ Spraying will not cause aerosol pollution
- ▶ Ideal for use in foam spray units

A01003 10 L jerrycan

A03003 30 L jerrycan

A20003 200 L plastic drum

A10003 1000 L IBC

Hazard warnings: Eye Dam. 1, Skin Corr. 1A,

Met. Corr. 1, Acut. Tox. 4



UNO W application

Recommended application concentration	1:40	1:30	1:20	1:10	Concentrated
Aluminium parts	●				
Workshop pits				●	
Car roof lining				●	
Bitumen spatter					●
Busses		●			
Chrome		●			
Diesel residues				●	
Stainless steel degreasing		●	●	●	●
Grease					●
Flyspeck				●	
Fork lift trucks		●			
Hard floors				●	
Plastic parts		●			
Plastic floors		●			
Trucks				●	
Truck tarpaulins				●	
Machines				●	
Nicotine				●	
Oil				●	
Oil residues				●	
Oil-polluted engines				●	
Repair parts	●	●	●	●	
Soot					●
Steel degreasing			●	●	●
Gates		●	●	●	●
Workshop equipment		●			
Tools		●	●	●	
Machine tools		●			
Tent tarpaulins	●				

Pressure washers

3 – 5 %

UNO W

Water-based workshop cleaner

- ▶ Product description in accordance with ÖNORM B 5105
- ▶ Water-based, phosphate-free, alkaline surfactant cleaner
- ▶ With temporary corrosion protection
- ▶ For the cleaning and degreasing of machinery, tools, workshop equipment, and vehicles
- ▶ Dissolves oils, greases, resins, waxes, nicotine, insect speck, soot, bitumen- and tar spatter etc. from metal, plastics, tiles, wood, and rubber
- ▶ Can be used in floor cleaning devices, pressure washers and spray extraction devices
- ▶ Compatible with oil separators
- ▶ TESTED IN ACCORDANCE WITH ÖNORM B 5105,
Registration number: ON-N 2011 139

A00189 1000 mL plastic bottle with trigger

Trading unit: 10 x 1000 mL (1 box)

A01089 10 L jerrycan

A03089 30 L jerrycan

A20089 200 L plastic drum

A10089 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2





Floor Cleaner

Low-foaming floor cleaner

- ▶ Water-based, low-foaming cleaner
- ▶ For everyday manual and mechanical floor cleaning
- ▶ Ideal for industry-, hall- and workshop floors, and production halls
- ▶ Cleans all water-resistant flooring materials, such as tiles, wood, linoleum, PVC, rubber, matt stones (e.g. marble, granite) in a material-protecting and non-abrasive manner
- ▶ Excellent wetting properties, good at releasing contaminations
- ▶ Non-flammable
- ▶ Can be heated up to 90°C/194°F
- ▶ No labelling required under the CLP Regulation

A01015 10 L jerrycan

A03015 30 L jerrycan

A20015 200 L plastic drum

A10015 1000 L IBC

Floor Cleaner STRONG

Extra-strong floor cleaner

- ▶ Powerful, water-based, alkaline, low-foaming
- ▶ Optimally suited for removing persistent contaminations, such as rubber marks, colour pigments, resins and waxes, from hall floors
- ▶ Powerfully releases contaminations from floorings
- ▶ Cleans in a material-protecting and non-abrasive manner
- ▶ Can also be applied as a basic cleaner

A01096 10 L jerrycan

A03096 30 L jerrycan

A20096 200 L plastic drum

A10096 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

UNI-SORB

Effective sorbent

- ▶ Odourless, dust-free granulate
- ▶ Absorbs any type of liquid fast and safely
- ▶ Ideally suited for all industrial areas where oils, greases, benzenes, acids, etc. are used
- ▶ Absorption capacity approx. 50 Vol.-%; bulk density approx. 525 g/L
- ▶ Purely mineral basis
- ▶ Reduces the risk of accidents
- ▶ No labelling required under the CLP Regulation

E01010 10 L pail

E03010 30 L pail

E12010 120 L plastic drum



CLEANING

FT 100

Surfactant-free cleaning agent

- ▶ Residue-, streak- and stain-free cleaning
- ▶ For cleaning prior to varnishing, gluing, labelling or coating
- ▶ No labelling required under the CLP Regulation
- ▶ Removes dust, fingerprints, light oil and grease contaminations, felt pen, fresh adhesive residues
- ▶ Flash point approx. 42 °C/107.6 °F, will not continue to burn
- ▶ VOC content under 20 % – not subject to the VOC Directive (1999/13/EC)

A50057 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A00557 5 L jerrycan

A01057 10 L jerrycan

A03057 30 L jerrycan

A20057 200 L plastic drum

A10057 1000 L IBC

FT 300

Surfactant-free surface pre-treatment

- ▶ Streak- and stain-free cleaning
- ▶ Cleans synthetic materials, varnished surfaces, glass, metal, and all highly polished and shiny surfaces
- ▶ For cleaning prior to varnishing, gluing and labelling
- ▶ Dissolves greases, resins, adhesives, and fingerprints
- ▶ Removes releasing agent- and adhesive residues in the woodworking industry
- ▶ Perfect for final cleaning prior to dispatch
- ▶ Removes soldering paste from stencils
- ▶ No labelling required under the CLP Regulation

A50057-97 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01057-97 10 L jerrycan

A03057-97 30 L jerrycan

A20057-97 200 L plastic drum

A10057-97 1000 L IBC



The FT range

They are ready-to-use, label-free under the CLP Regulation, and have a low VOC content. The surfactant-free, fast-drying FT cleaning agents are perfect for residue-, streak- and stain-free removal, in surface pre-treatment, such as cleaning and degreasing prior to varnishing, removing adhesive residues, or removing machining oil contaminations. FT 100 can also be applied in the foodstuffs industry.

FT 200

Phosphate-free, fast-drying cleaning agent

- ▶ Cleaning and degreasing prior to varnishing
- ▶ Fast-drying (evaporates faster than conventional water-based cleaners)
- ▶ Removes machining oils, anti-corrosion oils, light waxes and swarf from antifriction bearings
- ▶ Virtually residue-free, powerful cleaning
- ▶ Substitute for solvents, cellulose thinners and cold cleaners
- ▶ No labelling required under the CLP Regulation

A50057-98 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01057-98 10 L jerrycan

A03057-98 30 L jerrycan

A20057-98 200 L plastic drum

A10057-98 1000 L IBC

FT 400

Strong, water-based cleaning agent

- ▶ Excellent dissolving power
- ▶ For removing strong contaminations and for degreasing
- ▶ Optimal for industrial applications
- ▶ Removes adhesive residues, label residues, pigment inks, fresh paint residues, enamel residues, and releasing agents
- ▶ Ideal for removing the polymer quenchants from parts after hardening processes
- ▶ VOC content 34 %
- ▶ No labelling required under the CLP Regulation

A50057-93 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01057-93 10 L jerrycan

A03057-93 30 L jerrycan

A20057-93 200 L plastic drum

A10057-93 1000 L IBC



CLEANING

Power Cleaner 150

Water-based power cleaner

- ▶ Acidic, water-based all-purpose cleaner
- ▶ Low-foaming
- ▶ For manual and mechanical cleaning
- ▶ Removes cement- and limescale residues, urine scale, rust, metal tarnishing, and mineral contaminations
- ▶ Suitable for terraces, garden paths, and parks
- ▶ No labelling required under the CLP Regulation



A50020 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01020 10 L jerrycan

A03020 30 L jerrycan

A20020 200 L plastic drum



Nonfood Compounds
Program Listed (A3)
Registration # 152259

The Power Cleaner range

The Power Cleaner are acidic, powerful cleaners that are perfectly suited for removing inorganic contaminations, such as rust, limescale, oxidation and tarnishing. The water-based, phosphate-free cleaners are ideal for use in sanitary facilities and outdoor areas, such as terraces, pavements/footpaths or parks. The Power Cleaner DB is optimal for use in the RWR (Pipe- and Heat Exchanger Cleaning Device) for cleaning pipes and vessels, and in the HTW (Hot-Water Parts Washer). The Power Cleaner KST has been specifically developed for the plastics industry, for cleaning cooling ducts in plastic injection moulding tools.

Power Cleaner 200

Concentrated power cleaner

- ▶ Water-based (highly concentrated, can be diluted with water up to 1:40)
- ▶ Phosphate-free and hydrochloric acid-free
- ▶ In a cold state it removes cement- and limescale residues, urine scale, rust, oil-, grease- and protein residues, and water stains from exposed-aggregate flagstone, reinforced concrete, buildings, tombstones and natural stones, brass, copper, aluminium, and stainless steel
- ▶ Can be heated up to 90 °C/194 °F
- ▶ For hygienic cleaning

A50010 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01010 10 L jerrycan

A03010 30 L jerrycan

A20010 200 L plastic drum

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2, Met. Corr. 1

Please note:

Not suitable for marble or limestone!

Power Cleaner 300

Intensive cleaning concentrate

- ▶ Phosphate- and VOC-free, surfactant-based (highly concentrated, can be diluted with water up to 1:40)
- ▶ Removes e.g. limescale- and boiler scale residues, rust, cement residues, wall rot, sodium nitrate, salt scum and stains, and urine scale
- ▶ Ideal for cleaning alloy wheels
- ▶ Special penetration effect
- ▶ Already works in a cold state
- ▶ No phosphates or hydrofluoric acid

A50014 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01014 10 L jerrycan

A03014 30 L jerrycan

A20014 200 L plastic drum

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2, Met. Corr. 1, STOT SE 3

Please note:

When using it in confined spaces, make sure that the room is well ventilated!

CLEANING

Power Cleaner 400

Efficient, highly effective power cleaner

- ▶ Water-based, low-foaming acidic cleaner
- ▶ For mechanical cleaning
- ▶ Highly effective in the removal of even the most persistent of mineral deposits
- ▶ Can be used when different materials and metals have to be cleaned
- ▶ For cleaning and flushing pipes, coolers and Pipe- and Heat Exchanger Cleaning Devices (RWR)
- ▶ Less corrosive than conventional acids
- ▶ Non-oxidizing
- ▶ Good thermal stability – can be heated up to 60 °C/140 °F
- ▶ Free from phosphates, phosphoric and hydrochloric acid



A03094 30 L jerrycan

A20094 200 L plastic drum

Hazard warnings: Eye Dam. 1,

Skin Corr. 1B, Met. Corr. 1





Power Cleaner DB

Powerful, water-based acidic cleaner

- ▶ Low-foaming
- ▶ For the mechanical removal of mineral deposits, e.g. cleaning of vacuum toilets or flushing of pipes
- ▶ Descaling of spray-degreasing systems (hot-water parts washers)
- ▶ Free from hydrochloric acid
- ▶ Approved by Deutsche Bahn AG

A01028 10 L jerrycan

A03028 30 L jerrycan

A20028 200 L plastic drum

A10028 1000 L IBC

Hazard warnings: Eye Dam. 1,

Skin Irrit. 2, Met. Corr. 1

Power Cleaner KST

Cleaning and flushing of cooling ducts

- ▶ Eco-friendly, water-based acidic cleaner
- ▶ For cleaning the inside of the cooling ducts in plastic injection moulding tools
- ▶ Removes limescale and corrosion, even from complex pipe geometries
- ▶ No need for time-consuming drilling of cooling ducts
- ▶ No downtimes
- ▶ Increased occupational and operator safety
- ▶ The formation of biofilms is inhibited
- ▶ Maximum results in combination with the RWR KST cleaning device

A03009 30 L jerrycan

A20009 200 L plastic drum

Hazard warnings: Eye Irrit. 2, Met. Corr. 1



CLEANING

SC 100

Special cleaner

- ▶ Based on natural citrus peel extracts
- ▶ Effective removal of adhesive residues, bitumen, lubricants, graffiti, resin, etc.
- ▶ No CHC, no CFC
- ▶ Pleasant odour
- ▶ Fast-drying
- ▶ Perfect for use in the metalworking-, plastics-, woodworking-, rubber-, printing-, and textile industry

Please note:

Carry out a compatibility test on varnished surfaces and plastic- and rubber components!



A40037 400 mL aerosol spray can

Trading unit: 12 x 400 mL (1 box)

A50037 500 mL tin bottle

Trading unit: 20 x 500 mL (1 box)

A01037 10 L jerrycan

A03037 30 L jerrycan

A20037 200 L metal drum

Hazard warnings: Aquatic Acute 1, Aquatic Chronic 1, Asp. Tox. 1, Eye Irrit. 2, Skin Irrit. 2, Flam. Liq. 2, Skin Sens. 1, STOT SE 3

Aerosol: Aquatic Acute 1, Aquatic Chronic 1, Eye Irrit. 2, Skin Irrit. 2, Aerosol 1, Skin Sens. 1, STOT SE 3

The SC range



Special cleaners based on natural citrus peel extracts for fast and effective removal of adhesive residues, bitumen, lubricants, graffiti, resin, oils and greases, rubber residues and marks from metals, stone, concrete, marble, tiles, wood and glass (at ambient temperature and also at temperatures of down to -30°C/-22°F).

SC 200

Fast-drying special cleaner

- ▶ For the fast and effective removal of lubricants, bitumen, and adhesive residues
- ▶ With attenuated citrus scent
- ▶ For even faster drying
- ▶ No CHC, no CFC
- ▶ Universally applicable in the metal-working-, woodworking-, rubber-, and printing industry
- ▶ Leaves virtually no residues

A50042 500 mL tin bottle

Trading unit: 20 x 500 mL (1 box)

A01042 10 L jerrycan

A03042 30 L jerrycan

A20042 200 L metal drum

Hazard warnings: Aquatic Chronic 2, Asp. Tox. 1, Eye Irrit. 2, Skin Irrit. 2, Flam. Liq. 2, Skin Sens. 1, STOT SE 3

SC 400

Special cleaner ultra

- ▶ Especially for removing paint, sealing compounds, marking inks, Sharpie® stains
- ▶ Dries more slowly on the surfaces
- ▶ Based on natural citrus peel extracts
- ▶ Higher flashpoint
- ▶ Perfect for extreme contaminations

A50016 500 mL tin bottle

Trading unit: 20 x 500 mL (1 box)

A01016 10 L jerrycan

A03016 30 L jerrycan

A20016 200 L metal drum

Hazard warnings: Aquatic Acute 1, Aquatic Chronic 1, Asp. Tox. 1, Eye Dam. 1, Skin Irrit. 2, Flam. Liq. 3, Skin Sens. 1, STOT SE 3

CLEANING

Space-Des A

Hygienic cleaner

- ▶ Combined concentrate for cleaning and disinfection
- ▶ Suitable for all washable surfaces
- ▶ Cleans surfaces and machinery in a hygienic way
- ▶ Can be used in the foodstuffs industry
- ▶ Dissolves greases, proteins and dried-up beverage residues
- ▶ Chlorine-free, without colouring agents or fragrances
- ▶ DVG (German Association for Veterinary Medicine) tested, listed in the 2014 DVG list for the food industry – BAuA (Federal Institute for Occupational Safety and Health) registration no. N-55980

A50046 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01046 10 L jerrycan

A03046 30 L jerrycan

A20046 200 L plastic drum

Hazard warnings: Aquatic Acute 1, Acute Tox. 4, Eye Dam. 1, Skin Irrit. 2

Die-Casting Mould Cleaner

Removal of releasing agent residues

- ▶ For the removal of releasing agent residues from aluminium die-casting moulds
- ▶ Optimal intermediate cleaning with simultaneous preservation of moulds
- ▶ Very economical – low consumption
- ▶ Staff will not be bothered by fumes
- ▶ Ideal for aluminium die-casting foundries
- ▶ Non-flammable
- ▶ Good compatibility with commercial releasing agents

E01017 10 L jerrycan

E03017 30 L jerrycan

E20017 200 L metal drum

E10017 1000 L IBC

Hazard warnings: Asp. Tox. 1

Please note:

Use biocides safely. Always read the label and product information before use!

Tip:

Mould stains, e.g. on tents, are removed safely!





OMNI

Multifunctional cleaner and lubricant with excellent capillarity

- ▶ Dissolves rust and graphite, removes resinified greases and oils
- ▶ Lubricates everything from hinges to bike pedals
- ▶ Protects from corrosion
- ▶ Efficient pre-cleaning with strong resin-, grease- and oil contaminations
- ▶ Ideal for everyday use in production, maintenance, crafts, workshops, gardening, forestry, and in the building industry

E10016 100 mL aerosol spray can

Trading unit: 12 x 100 mL (1 box)

E40016 400 mL aerosol spray can

Trading unit: 12 x 400 mL (1 box)

E50016 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

E01016 10 L jerrycan

E03016 30 L jerrycan

E20016 200 L metal drum

E10116 1000 L IBC

Hazard warnings: Asp. Tox. 1

Aerosol: Flam. Aerosol 1

OMNI 200

Label-free multifunctional oil

- ▶ Lubricates, dissolves, protects, cleans
- ▶ Excellent capillarity
- ▶ Dissolves rust and graphite, removes resinified greases and oils
- ▶ Lubricates hinges and bike pedals
- ▶ Protects from rust and creep current
- ▶ Suitable for a variety of materials
- ▶ No silicone, no acid, no Teflon®
- ▶ No labelling required under the CLP Regulation

E50018 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

E01018 10 L jerrycan

E03018 30 L jerrycan

E20018 200 L plastic drum

E10018 1000 L IBC

VOC
free!

CLEANING



STAR 100

Low-foaming cleaner

- ▶ Water-based, salt-free, low-foaming (from 40°C/104°F) cleaner
- ▶ Free from inorganic ingredients
- ▶ Residue-free cleaning
- ▶ Ideal for cleaning before and after the hardening process, gas nitriding, etc.
- ▶ Removes i.e. oils and greases
- ▶ Demulsifying properties – long bath lives can be achieved
- ▶ Suitable for mechanical applications

VOC
free!

A03095 30 L jerrycan

A20095 200 L plastic drum

A10095 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

STAR 200

Cleaner for medium and strong contaminations

- ▶ Highly concentrated, water-based
- ▶ Removes machining oils and greases, swarf, polishing pastes, protein and other contaminations
- ▶ Cleans steel, iron, casting, and plastics
- ▶ Ideal for pre- and intermediate cleaning in metal processing
- ▶ Demulsifying – cleaning bath recycling is possible
- ▶ Phosphate-free
- ▶ Substitute for solvents

VOC
free!

A03078 30 L jerrycan

A20078 200 L plastic drum

A10078 1000 L IBC

Hazard warnings: Eye Dam. 1, Skin Corr. 1A

STAR 300

Cleaner for extremely persistent contaminations

- ▶ Removes very strong contaminations, such as oil incrustations and resin formations, from anti-friction- and roller bearings
- ▶ Ideal for mechanical parts cleaning in production and maintenance
- ▶ Can be used e.g. in spray-, flood-, immersion- and high-pressure cleaning devices
- ▶ Effective cleaning performance already at 0.5 % concentration
- ▶ Optimal cleaning temperature at 60°C/140°F

VOC
free!

A03079 30 L jerrycan

A20079 200 L plastic drum

A10079 1000 L IBC

Hazard warnings: Eye Dam. 1, Skin Corr. 1A, Met. Corr. 1

	Aluminum	Galvanized surfaces	Non-ferrous metals	Brass, high gloss polished	High gloss polished surfaces	Steel/stainless steel	Plastics	Alkaline-resistant surfaces	Spray cleaning	Immersion cleaning	Low-temperature cleaning
STAR 100	-	-	-	-	-	X	X	X	X	X	-
STAR 200	-	-	-	-	-	X	X	X	X	X	X
STAR 300	-	-	-	-	-	X	X	X	X	X	-

The STAR and ALUSTAR range

Low-foaming machine cleaners – specially developed for low-temperature cleaning. The STAR cleaners already operate effectively at ambient temperature. They save energy and time. The risk of drying on the parts is lower. No condensate will form on the parts during cooling. STAR 100 has been specially developed as a salt-free hardening plant cleaner for cleaning before and after hardening processes.

ALUSTAR 100

Low-residue cleaner for light and medium contaminations

- ▶ Water-based, VOC-free cleaner
- ▶ Mildly alkaline, silicate-free
- ▶ Suitable for mechanical cleaning in spray-, immersion- and ultrasonic cleaning devices
- ▶ Ideal for cleaning and degreasing aluminium, galvanized surfaces, synthetic materials, steel/stainless steel
- ▶ No labelling required under the CLP Regulation



A03077 30 L jerrycan

A20077 200 L plastic drum

A10077 1000 L IBC

ALUSTAR 200

Cleaner for medium and strong contaminations

- ▶ Alkaline water-based cleaner and degreaser
- ▶ Suitable for mechanical applications
- ▶ Removes strong grease-, oil- and pigment contaminations
- ▶ Ideal for aluminium, galvanized surfaces, non-ferrous metals, and all other alkali-resistant surfaces
- ▶ Can be used in a cold state (Clean Blue Efficiency)

A03084 30 L jerrycan

A20084 200 L plastic drum

A10084 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

ALUSTAR 300

Cleaner for extremely persistent contaminations

- ▶ Product description in accordance with ÖNORM B 5105
- ▶ Water-based, alkaline surfactant solution
- ▶ Low-foaming and phosphate-free
- ▶ For the cleaning and degreasing of heavily contaminated components
- ▶ Suitable for mechanical cleaning in spray-, immersion- and ultrasonic cleaning devices
- ▶ Ideal for aluminium, steel/stainless steel, synthetic materials, and other alkaline surfaces
- ▶ Compatible with oil separators
- ▶ TESTED IN ACCORDANCE WITH ÖNORM B 5105 – registration number: ON-N 2011 138

A03029 30 L jerrycan

A20029 200 L plastic drum

A10029 1000 L IBC

Hazard warnings: Skin Corr. 1B

	Aluminium	Galvanized surfaces	Non-ferrous metals	Brass, high gloss polished	High gloss polished surfaces	Steel/stainless steel	Plastics	Alkali-resistant surfaces	Spray cleaning	Immersion cleaning	Low-temperature cleaning
ALUSTAR 100	X	X	-	-	-	X	X	X	X	X	X
ALUSTAR 200	X	X	X	-	-	X	X	X	X	X	X
ALUSTAR 300	X	-	-	-	-	X	X	X	X	X	X

CLEANING

STAR US 1

*Cleaning concentrate for
ultrasonic baths*

- ▶ Water-based, acidic cleaning concentrate
- ▶ For mechanical applications in ultrasonic devices
- ▶ For removing rust, limescale, oxides, mineral deposits
- ▶ Demulsifying
- ▶ Already works in a cold state

STAR US 2

*Alkaline universal
cleaning concentrate*

- ▶ Water-based, alkaline cleaner
- ▶ For mechanical applications in ultrasonic devices
- ▶ Removes oil, grease, soot, cooling lubricants, coking residues, tinder, and dust
- ▶ Ideal for removing releasing agent- and plastic residues from tools and moulds
- ▶ Good cleaning results even at ambient temperature

	Aluminium	Galvanized surfaces	Non-ferrous metals	Brass	Stainless steel	Steel	Plastics	Alkaline-resistant surfaces	Acid-resistant surfaces
STAR US 1	X	-	X	X	X	-	X	-	X
STAR US 2	-	-	-	-	X	X	X	X	-
STAR US 3	-	-	-	-	X	X	X	X	-
STAR US 4	X	X	X	X	X	X	X	X	-
STAR US 5	-	-	-	-	X	X	X	X	-

A00553-1 5 L jerrycan

A01053-1 10 L jerrycan

A03053-1 30 L jerrycan

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2, Met. Corr. 1

A00553-2 5 L jerrycan

A01053-2 10 L jerrycan

A03053-2 30 L jerrycan

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2



The STAR US range

The innovative optimization of ultrasonic cleaning

The Bio-Circle STAR US cleaners optimize the cleaning performance of the ultrasound. The selected surfactants and active ingredients are constantly active in strong intensive cleaning (25 kHz) as well as in fine cleaning (45 kHz). The cleaners are water-based, VOC-free or VOC-reduced, highly concentrated and demulsifying.

STAR US 3

Ultrasonic cleaner for contaminations that are difficult to remove

- ▶ Water-based, alkaline cleaner
- ▶ For ultrasonic cleaning
- ▶ Removes oil-, grease- and pigment contaminations that are difficult to remove
- ▶ Gentle on materials such as aluminium and non-ferrous metals
- ▶ Cleans and degreases parts where normally only solvent cleaners work

A00553-3 5 L jerrycan

A01053-3 10 L jerrycan

A03053-3 30 L jerrycan

Hazard warnings: Eye Dam. 1, Skin Corr. 1B,
STOT SE 3

VOC
free!

STAR US 4

Special cleaner for extremely persistent contaminations

- ▶ Highly concentrated, water-based special cleaner to be used in ultrasonic baths
- ▶ Phosphate- and VOC-free
- ▶ Also suitable for aluminium
- ▶ Removes persistent oil- and grease contaminations
- ▶ Does not affect aluminium and castings
- ▶ Ideal for contaminated rough surfaces
- ▶ Already works in a cold state, but can be heated up to 90 °C/194 °F

A00553-4 5 L jerrycan

A01053-4 10 L jerrycan

A03053-4 30 L jerrycan

Hazard warnings: Eye Dam. 1, Skin Corr. 1B

VOC
free!

STAR US 5

Highly alkaline special cleaner

- ▶ Highly alkaline, water-based cleaner
- ▶ Removes extremely persistent contaminations
- ▶ Removes incrustations, resin formations and cracking in ultrasonic devices
- ▶ Removes thin layers of varnish
- ▶ Already works in a cold state
- ▶ Cleans parts made of steel/stainless steel, iron, castings, plastics

A00553-5 5 L jerrycan

A01053-5 10 L jerrycan

A03053-5 30 L jerrycan

Hazard warnings: Eye Dam. 1, Skin Corr. 1A,
Met. Corr. 1

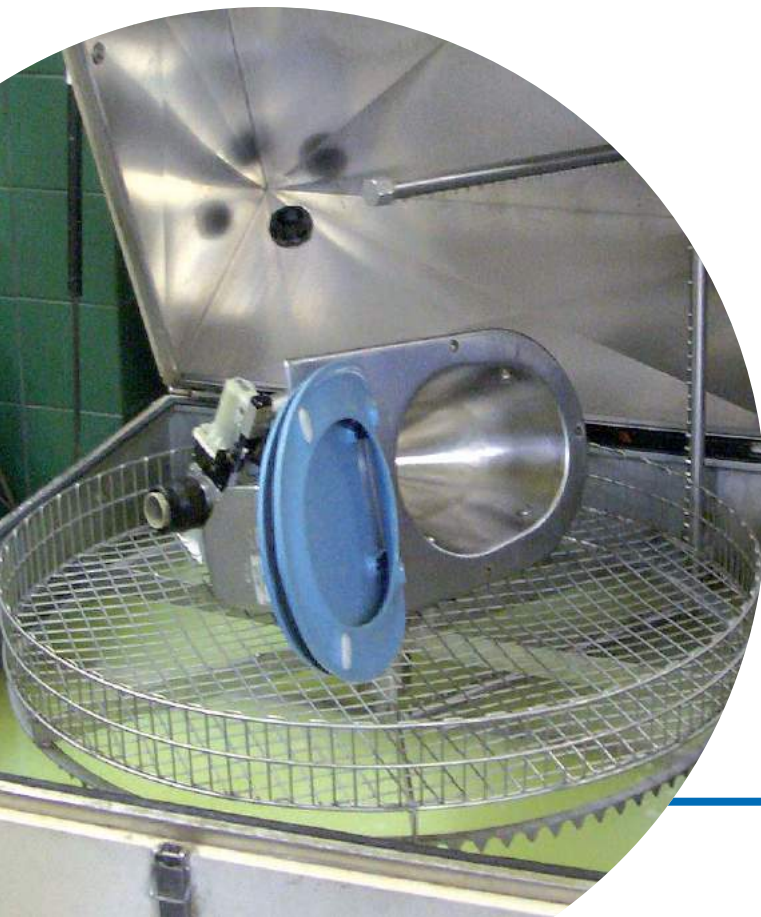
VOC
free!

CLEANING

Defoamer

*Silicone-free or with silicone
for water-based systems*

- ▶ Wherever foam would have a disruptive effect
- ▶ Fast and permanent foam destruction
- ▶ To be used e.g. in hot-water parts washers
- ▶ Specifically developed for the water-based Bio-Circle cleaning agents
- ▶ Can be used in different pH ranges
- ▶ Good dispersibility and easy spreading
- ▶ Good solubility and good miscibility



Defoamer silicone-free

A01087 10 L jerrycan

A03087 30 L jerrycan

Hazard warnings: Acute Tox. 4

Defoamer with silicone

A01087-01 10 L jerrycan

A03087-01 30 L jerrycan



Corrosion protection for water-based systems

Low-foaming corrosion inhibitor

- ▶ Low-foaming corrosion protection component for Bio-Circle products
- ▶ Water-miscible, amine-based
- ▶ Provides temporary corrosion protection for steel-, iron- and casting materials
- ▶ Contains 100% active ingredients
- ▶ Achieves optimal effect in neutral and alkaline systems
- ▶ Improved corrosion protection with long service lives
- ▶ Free (inter alia) from mineral oil, nitrite, and PTBB
- ▶ Ideal for improving corrosion protection in the BIO-CIRCLE Liquid
- ▶ No labelling required under the CLP Regulation

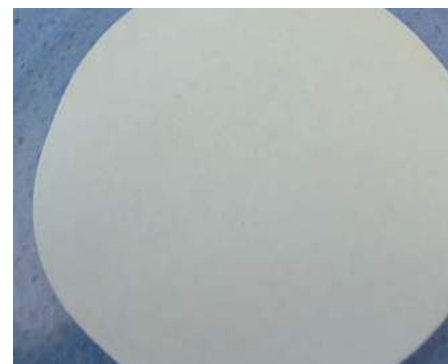
Grey iron shavings test in accordance with DIN 51 360 Part 2:

Grey iron shavings are placed on a white filter and wetted with the liquid to be examined. After 2 hours the shavings are removed, and the corrosion deposits on the filter are evaluated.

Without corrosion protection: degree of corrosion = 4



With 2.5 % corrosion protection for water-based systems: degree of corrosion = 0



Tip:

You're not sure about the corrosion protection of your Bio-Circle cleaning bath? We'll be happy to carry out a free corrosion test for you!

A00111 1000 mL plastic bottle

Trading unit: 12 x 1000 mL (1 box)

A01011 10 L jerrycan

A03011 30 L jerrycan

A12011 120 L plastic drum

CLEANING



Smoke Resin Remover

Intensive cleaner with active foam

- ▶ Highly concentrated, water-based
- ▶ Phosphate- and VOC-free
- ▶ Removes smoke resin residues, resinous greases, oils and protein residues
- ▶ For the cleaning of smokehouses, cooking facilities, filters, escapes and exhaust hoods, ovens etc.
- ▶ For the removal of persistent residues and pollution
- ▶ Suitable for use in the foodstuffs industry
- ▶ Residue-free rinsability, no adverse effects on the smell or taste of foodstuffs in accordance with sec. 31 LFBG
- ▶ Optimal for the cleaning of escapes and flues in industrial kitchens and canteens, and filters



Please note:
Do not apply concentrated cleaner on aluminium and zinc coatings!



Norfood Compounds
Program Listed (A1)
Registration # 147908

A50038 500 mL plastic bottle with foam nozzle

Trading unit: 20 x 500 mL (1 box)

A00138 1000 mL plastic bottle

Trading unit: 12 x 1000 mL (1 box)

A01038 10 L jerrycan

A03038 30 L jerrycan

A20038 200 L plastic drum

Hazard warnings: Eye Dam. 1, Skin Corr. 1A,

Met. Corr. 1

The Smoke Resin Remover range

These phosphate- and VOC-free cleaners remove even the most persistent of contaminations, such as smoke resin residues, resinous and burnt-in greases, vegetable and mineral oils and protein residues, manufacturing residues, but also contaminated anti-friction- and roller bearing greases. The cleaners are fire- and explosion-proof and non-flammable. The Smoke Resin Remover is NSF-certified and hence suitable for use in the foodstuffs industry.

Smoke Resin Remover foamless

Low-foaming intensive cleaner

- ▶ Highly concentrated, water-based cleaner
- ▶ Low-foaming, phosphate- and VOC-free
- ▶ Ideal for all mechanical applications where foam would be disruptive
- ▶ Removes even the most persistent of contaminations, such as smoke resin residues, resinous greases, oils and protein residues
- ▶ Ingressed oil and grease can be removed mechanically (e.g. by means of a plate separator)
- ▶ Optimal cleaning temperature at approx. 60°C/140°F

A00145 1000 mL plastic bottle

Trading unit: 12 x 1000 mL (1 box)

A01045 10 L jerrycan

A03045 30 L jerrycan

A20045 200 L plastic drum

Hazard warnings: Eye Dam. 1, Skin Corr. 1A,
Met. Corr. 1

Smoke Resin Remover DB

Intensive cleaner for mechanical use

- ▶ Highly concentrated, water-based alkaline cleaner
- ▶ Removes smoke resin residues, resinous greases and oils, as well as anti-friction- and roller bearing greases
- ▶ Universally applicable in single- and multi-chamber spray cleaning devices (hot-water parts washers), immersion- and ultrasonic cleaning devices, and especially in RWR Pipe- and Heat Exchanger Cleaning Devices
- ▶ Approved by Deutsche Bahn AG

A01058 10 L jerrycan

A03058 30 L jerrycan

A20058 200 L plastic drum

A10058 1000 L IBC

Hazard warnings: Acute Tox. 4, Eye Dam. 1,
Skin Corr. 1A, Met. Corr. 1

CLEANING



Stripper

Alkaline coating remover

- ▶ Water-based
- ▶ Excellent dissolving powers
- ▶ Removes water-based paint and varnish, plastic residues, impregnation compounds, resins, and waxes
- ▶ Penetrates and dissolves varnish
- ▶ Good cleaning results even at ambient temperature
- ▶ Can be used in immersion baths and ultrasonic baths
- ▶ Universally applicable in the entire industry



A00176 1000 mL plastic bottle

Trading unit: 12 x 1000 mL (1 box)

A01076 10 L jerrycan

A03076 30 L jerrycan

A20076 200 L plastic drum

A10076 1000 L IBC

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

Stripper Gel

Cleaning gel

- ▶ Viscous mixture of solvents, halogen-free
- ▶ Removes paint and coatings, graffiti, adhesive residues, burnt-in soot particles, resins, varnish, grout (two-component epoxy-based sealant) and many more
- ▶ Good product adhesion even on perpendicular surfaces
- ▶ Can be used on surfaces made from metal, wood, stone, concrete, glass, plastics, tiles and clinker bricks

A00556 5 kg jerrycan

A03056 30 kg jerrycan

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2



Bio Grease-Ex

Residue-free cleaner with excellent dissolving power

- ▶ Removes extremely persistent contaminations, such as oils and greases, adhesive residues, tar, and lubricants
- ▶ Can be used on metal, tiles, stone, marble, wood and glass
- ▶ Cleans at temperatures down to $-35^{\circ}\text{C}/-31^{\circ}\text{F}$
- ▶ Ideal for the cleaning and degreasing of complex geometries made of steel and stainless steel prior to further processing
- ▶ Can be applied prior to varnishing, gluing, and labelling
- ▶ Excellent wetting performance
- ▶ Two-component effect dissolves both water-soluble and oil-soluble residues
- ▶ Fast-drying
- ▶ Environmentally compatible – biodegradable – biodegradability > 90 % (OECD 301E method)

A50097 500 mL tin bottle

Trading unit: 20 x 500 mL (1 box)

A01097 10 L jerrycan

A03097 30 L jerrycan

A20097 200 L metal drum

A10097 1000 L IBC

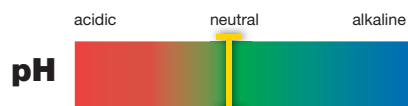
Hazard warnings: Eye Irrit. 2, Skin Irrit. 2, Flam. Liq. 3, STOT SE 3

Please note:
Carry out a compatibility test on rubber- and plastic components!

BIO-RUST

Water-based, pH-neutral deruster

- ▶ Removal of rust from metals in the pH-neutral range
- ▶ Universally applicable in the derusting of steel- and iron parts
- ▶ Removes flash rust as well as thick rust layers
- ▶ Picks the rust from the surface
- ▶ Smooth removal without affecting the material surface
- ▶ Halogen-free
- ▶ Ideal for applications in immersion processes (CLEAN BOX) or ultrasonic devices
- ▶ No labelling required under the CLP Regulation



A01052 10 L jerrycan

A03052 30 L jerrycan

A20052 200 L plastic drum

A10052 1000 L IBC

VOC
free!

CLEANING SOLUTIONS

CLEANING

E-NOX Care

Highly refined maintenance oil

- ▶ For stainless steel, aluminium and non-ferrous metals
- ▶ Long-term protection for stainless steel (indoors and outdoors)
- ▶ A slightly gleaming film protects from fresh pollution
- ▶ Subsequent fingerprints won't remain visible
- ▶ Displaces humidity
- ▶ Protects from weather effects

B50019 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

B00519 5 L jerrycan

B01019 10 L jerrycan

B03019 30 L jerrycan

Hazard warnings: Asp. Tox. 1, Eye Irrit. 2

E-NOX Shine

Special product for the cleaning and maintenance of matt and polished stainless steel

- ▶ Water-based
- ▶ Removes dust, fingerprints, and oil
- ▶ Maintains metal surfaces, e.g. stainless steel
- ▶ Dries fast on processed surfaces
- ▶ No labelling required under the CLP Regulation
- ▶ Silicone-free

A50070 500 mL aerosol can

Trading unit: 12 x 500 mL (1 box)

A50170 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01070 10 L jerrycan

A03070 30 L jerrycan

A20070 200 L plastic drum

A10070 1000 L IBC

Hazard warnings: Aerosol: Aerosol 1, Aerosol 1



Nonfood Compounds
Program Listed (A7, C1)
Registration # 130543



The E-NOX range – Stainless steel cleaning and care

The E-NOX cleaners make cleaning large stainless steel surfaces easy. After the various treatment processes, they allow the stainless steel surfaces to shine in new splendour. They are free from hydrofluoric and nitric acid, which makes them the ideal choice for the cleaning and care of matt and polished stainless steel, aluminium and non-ferrous metals. Also heavily weathered and corroded surfaces can be cleaned. Extraneous rust or mineral deposits can be removed without affecting the basic metal.

E-NOX Clean

Cleaning gel for removing mineral residues

- ▶ Water-based, acidic cleaning gel
- ▶ Removes limescale- and cement residues, extraneous rust, and also light grease- and oil contamination
- ▶ Can be diluted with water up to 1:40
- ▶ Brightens stainless steel, aluminium and non-ferrous metals without affecting the basic metal
- ▶ Removes flash rust from stainless steel
- ▶ Contains neither hydrofluoric nor nitric nor hydrochloric acid
- ▶ Non-flammable



A00141 1000 mL plastic bottle

Trading unit: 12 x 1000 mL (1 box)

A01041 10 L jerrycan

A03041 30 L jerrycan

A20041 200 L plastic drum

Hazard warnings: Eye Dam. 1,
Skin Irrit. 2, Met. Corr. 1

Tip:

E-NOX Clean for bikers:
effortless and fast cleaning of
stainless steel exhaust systems,
rims and spokes. Brush it on,
rub it in with a brush if necessary,
and rinse it off after 10 min
application time. Finished!



E-NOX-I

Water-based, viscous, acidic cleaner with abrasive ingredients

- ▶ Ultra-strong cleaner for stainless steel and other surfaces – universally applicable – cleans heavily weathered and corroded surfaces
- ▶ Removes mineral sediments, such as limescale, cement, and incrustations.
- ▶ The original look will be restored
- ▶ Ultra-fine abrasive materials guarantee thorough cleaning without visibly damaging the surface
- ▶ Also cleans aluminium, copper, enamel, synthetics, acid-resistant clinker bricks, and other acid-resistant surfaces
- ▶ Optimal application in combination with the special cleaning fleece

A00192 1 kg plastic bottle

Trading unit: 12 x 1 kg (1 box)

A00592 5 kg jerrycan

A01092 10 kg jerrycan

A03092 30 kg jerrycan

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2, Met. Corr. 1



CLEANING

Multi Clean

General purpose power from A to Z

- ▶ Water-based, alkaline cleaner
- ▶ Phosphate-free
- ▶ Universally applicable, manually and mechanically
- ▶ For the removal of grease, oil, resin, nicotine, ink, insect speck, blood, bitumen- and tar spatter
- ▶ Non-flammable and non-abrasive

Please note:

Carry out a compatibility test on sensitive surfaces and on textiles, carpets and upholstery!

A10124 1000 mL plastic bottle with trigger

Trading unit: 10 x 1000 mL (1 box)

A00524 5 L jerrycan

A01024 10 L jerrycan

A03024 30 L jerrycan

A20024 200 L plastic drum

Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

VOC
reduced!

Eyeglass Cleaner

Anti-mist, without alcohol

- ▶ For spectacles and safety goggles made from glass or plastics, safety masks, welding goggles, gas- and smoke goggles, visors
- ▶ For the removal of fingerprints, dust, dirt, and light oil- and grease residues
- ▶ Anti-mist, anti-static, silicone-free
- ▶ No labelling required under the CLP Regulation
- ▶ Ready to use – just spray it on and wipe dry with a cloth

A05057-20 50 mL pump-action bottle

Trading unit: 25 x 50 mL (1 box)

A25157-20 250 mL refill bottle

Trading unit: 12 x 250 mL (1 box)



Rubbel-Dubbel

Damp cleaning wipes

- ▶ Damp, perforated cleaning wipes
- ▶ Very sturdy heavy-duty special wipe
- ▶ For fast and thorough cleaning without water
- ▶ Remove fresh paint- and varnish residues, adhesives, greases and oils, stamping ink, felt pen, and many more
- ▶ Universally applicable in industry and trade as well as in the leisure sector
- ▶ Lint-free, leave no fibrous residues
- ▶ Also remove stains from textiles, carpets and upholstery

A00186 Dispenser pail with 90 wipes

Wipes: 250 x 320 mm

*In a convenient
dispenser pail!*

Hand Cleaning Cream

For persistent contaminations

- ▶ Thorough yet smooth removal of persistent contaminations and dried greasy, oily residues from the hands
- ▶ Gentle on the skin thanks to nurturing additives
- ▶ Can be used in dispensing systems
- ▶ Dermatologically tested
- ▶ Pleasant scent
- ▶ For use in all trade- and industry sectors, workshops, and the home- and hobby sector



A25007-04 250 mL squeeze bottle

Trading unit: 24 x 250 mL (1 box)

A00307-04 3 L jerrycan

A01007-04 10 L jerrycan

A03007-04 30 L jerrycan

A00007-30 Hand Cleaner starter kit

consists of: 3 L jerrycan of Hand Cleaner,
dosing pump,
wall bracket (incl. mounting material),
10 L refill jerrycan of Hand Cleaner

H00011 Dosing pump incl. wall bracket

for 3 L jerrycan



*Dermatologically
tested!*

CLEANING



Microorganisms
are working
for you here!

New Fresh Air

Odour remover with long-term effect

- ▶ Odours are eliminated by microorganisms
- ▶ Eliminates unpleasant smells
- ▶ Can be used for rubbish bins and e.g. against flooding-, burnt-, nicotine- and restroom smells
- ▶ Long-term effect due to a two-step combination of active ingredients: instant and long-term effect
- ▶ Also acts pre-emptively
- ▶ Ideal for hospitals, nursing homes, supermarkets, car- and truck interiors, industrial and private areas
- ▶ No labelling required under the CLP Regulation

A50071 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A00571 5 L jerrycan

A01071 10 L jerrycan

A03071 30 L jerrycan



Urine Attack

Biological odour elimination

- ▶ Water-based, pH-neutral cleaner
- ▶ For eliminating urine smells in restrooms
- ▶ Instant effect by means of odour absorbers
- ▶ Long-term effect by means of microorganisms
- ▶ Very economical, immediate and long-lasting effect
- ▶ No pitting of chrome fittings
- ▶ Penetrates the joints and reliably degrades urine there without pitting or eroding the joints
- ▶ No labelling required under the CLP Regulation

A50039 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A00139 1000 mL plastic bottle

Trading unit: 12 x 1000 mL (1 box)

A01039 10 L jerrycan

A03039 30 L jerrycan





Limescale Barracuda

Bathroom cleaner with activated foam

- ▶ Water-based, acidic cleaner
- ▶ Extra strong upon limescale, urine scale, rust, water stains, soap residues, and metal tarnishing
- ▶ Universally applicable for the cleaning of sanitary facilities, saunas and public pools
- ▶ Eco-sensitive concept
- ▶ Well-adhering activated foam
- ▶ Free from phosphate and chelating agents, contains no AOX compounds and no hydrochloric acid
- ▶ Pleasant, fresh smell

Please note:
Not suitable for marble
or limestone!

A50002 500 mL PET bottle with trigger

Trading unit: 20 x 500 mL (1 box)

A01002 10 L jerrycan

A03002 30 L jerrycan

A20002 200 L plastic drum

Tip:

Removes white rust from
galvanized surfaces!



Hair Remover Drain-Free

Highly concentrated, liquid drain cleaner

- ▶ Highly concentrated, liquid drain cleaner
- ▶ Fast-acting
- ▶ Removes hairs, soap residues, greases, blood residues, etc. from siphons, pipes and drains
- ▶ No chlorinated ingredients
- ▶ Universally applicable in the foodstuffs- and beverage industry, in hotels, hospitals, sanitary facilities

A00106 1000 mL plastic bottle

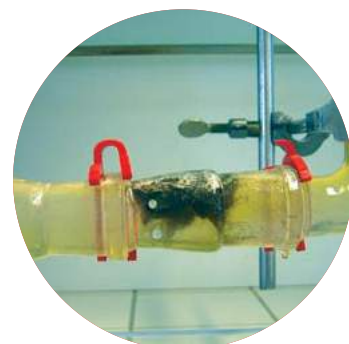
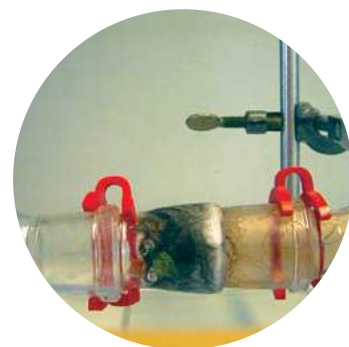
Trading unit: 12 x 1000 mL (1 box)

A01006 10 L jerrycan

A03006 30 L jerrycan

A20006 200 L plastic drum

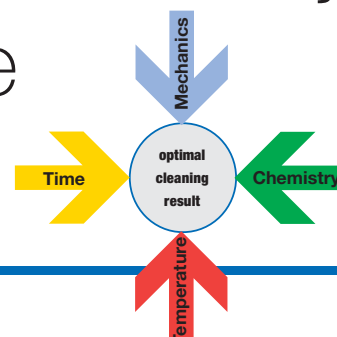
Hazard warnings: Acute Tox. 4, Eye Dam. 1,
Skin Corr. 1A, Met. Corr. 1



CLEANING
SOLUTIONS

CLEANING SYSTEMS

System solution for the industry sustainable – innovative



Safe and convenient cleaning and degreasing of big parts

The Bio-Circle cleaning systems offer a wide range of water-based cleaning devices for safe and convenient cleaning and degreasing. They cover a wide range of fields of application, as they are suitable for use in all areas of the industry, e.g. in the entire service and maintenance sector.



CLEANING SYSTEMS

BIO-CIRCLE GT Compact

The optimal solution for your parts washing

The BIO-CIRCLE GT Compact is a parts washer system with a compact design. Its easy handling and the fast, safe and eco-friendly cleaning also of strongly contaminated parts make it a pro in parts cleaning. The sturdy plastic (PE) device is recyclable, the VOC-free Liquids have long service lives, and maintenance is easy and unproblematic because the control box contains all technical components (electronics, heating, float switch and temperature sensor). This ensures easy assembly for service, repair and cleaning.

- ▶ **Cleaning and degreasing of strongly contaminated parts**
- ▶ **Optimized depth of the basin ensures good splash protection**
- ▶ **Easy transport by means of a lift truck or a rail system with castors (optional)**
- ▶ **Control box with easier access to the components**
- ▶ **Filter system in the basin drain (coarse-, fine- and bag filter plus magnet)**



BIO-CIRCLE systems



Natural, biological parts washing – The BIO-CIRCLE systems offer the optimal solution for parts washing. With its easy handling, the fast, safe and eco-friendly cleaning also of strongly contaminated parts, and the long service lives of the VOC-free Liquids, the BIO-CIRCLE system is simply unbeatable in terms of economic efficiency. The BIO-CIRCLE operates without solvents. Replace your cold-cleaner parts washer with the BIO-CIRCLE and make an active contribution to your employees' occupational safety and to environmental protection.



BIO-CIRCLE GT Maxi

Parts washer with high payload

The BIO-CIRCLE GT Maxi is a high-performance, sturdy and durable parts washer. It scores with its ease of use and high payload. The parts washer features a large effective surface, plenty of space even for cumbersome parts that can be cleaned perfectly with the long hose on the brush. Its ergonomic design provides the plastic (PE) device with high stability. The double-walled liquid tank has an insulating effect, which reduces heat losses.

- ▶ **Easy handling of the liquid pump by means of a push-button switch**
- ▶ **The hinged upper section ensures easy servicing, maintenance and repair**
- ▶ **Filter system in the basin drain (coarse-, fine- and bag filter plus magnet)**
- ▶ **A lid (optional) protects from contaminations**
- ▶ **Easy transport by means of a lift truck**

	BIO-CIRCLE GT Compact	BIO-CIRCLE GT Maxi
Work surface (W x D)	approx. 700 x 480 mm	approx. 810 x 520 mm
Payload	100 kg	250 kg
Working height	970/800 mm	1030/860 mm
Operating temperature	15 – 45 °C, factory-set at approx. 41 °C	15 – 45 °C, factory-set at approx. 41 °C
Heating	approx. 650 W	approx. 650 W
Pump	40 W	40 W
Optimum filling quantity	90 litres	100 litres
Material	LDPE	LDPE
Empty weight	approx. 45 kg	approx. 60 kg
Power supply	230 V, 50 Hz	230 V, 50 Hz
Order number	G50030	G60030

CLEANING SYSTEMS



	BIO-CIRCLE GT Compact Blue	BIO-CIRCLE GT Maxi Blue
Work surface (W x D)	700 x 480 mm	810 x 520 mm
Payload	100 kg	250 kg
Working height	970/800 mm	1030/860 mm
Pump	40 W	40 W
Optimum filling quantity	90 litres	100 litres
Material	LDPE	LDPE
Empty weight	approx. 45 kg	approx. 55 kg
Power supply	230 V. 50 Hz	230 V. 50 Hz
Order number	G50040	G60040



BIO-CIRCLE L Blue

– The optimal cleaner and degreaser specifically designed for use in the BIO-CIRCLE GT Blue

CB 100 Blue

– The optimal cleaner for removing persistent contaminations specifically designed for use in the BIO-CIRCLE GT Blue



CleanBlue by Bio-Circle



BIO-CIRCLE Blue – the cool ones

Resource-efficient and sustainable cleaning at ambient temperature. The BIO-CIRCLE Blue product line facilitates maximum cleaning performance at efficient consumption. The parts washers and the cleaners BIO-CIRCLE L Blue and CB 100 Blue form a perfect symbiosis in parts cleaning. 100 % performance at ambient temperature already – and all that without any solvents, benzines or cold cleaners. As cleaning occurs at ambient temperature, electricity is only needed for the pump.



BIO-CIRCLE GT Maxi Blue and BIO-CIRCLE GT Compact Blue provide water-based cleaning with natural microorganisms and of course without any solvents. The employee and the environment are protected from highly volatile vapours. Oil biodegradation guarantees a long service life. No HAZMAT, no hazardous goods, no fire hazard – suitable for use in maintenance, production, parts cleaning, service, and any sector of the industry.

- ▶ **Working at ambient temperature**
- ▶ **Easy maintenance and servicing**
- ▶ **Filter system in the basin drain
(coarse-, fine- and bag filter plus magnet)**
- ▶ **Long service life, not much waste
– safety and quality in cleaning**

CLEANING SYSTEMS

Stainless steel top piece for BIO-CIRCLE

The stainless steel top piece for the BIO-CIRCLE Maxi with its large work surface and high payload (up to 1000 kg) offers exceptional working comfort. It is ideally suited for the cleaning of big and heavy parts, and its particularly large work surface (1500 x 950 mm) can be used by two operators at the same time. The stainless steel top pieces feature a conical drain with a sieve filter and a bag filter (25 µm); PE grids for protection are available as an optional extra.



G60030-18	Stainless steel top piece for BIO-CIRCLE GT Maxi	payload 250 kg, 1500 x 950 x 300 mm
G60030-17	Stainless steel top piece with base frame for BIO-CIRCLE GT Maxi	payload 500 kg, 1504 x 1004 x 300 mm
G60030-19	Stainless steel top piece with base frame for BIO-CIRCLE GT Maxi	payload 1000 kg, 1504 x 1004 x 300 mm
G60030-16	BIO-CIRCLE GT Maxi Tank with control box for stainless steel top pieces	

Optional equipment and accessories for the BIO-CIRCLE

We provide you with matching original accessories for every BIO-CIRCLE device, from lids to protective bases, from mobile kits to angled brushes. You will get the perfect all-round package for your BIO-CIRCLE.



Green and swift

Flexible upgrades – For the BIO-CIRCLE GT parts washers there are various optional extras, such as sturdy lids that are easy to hook into the rear of the devices; a Mobility Kit that facilitates comfortable work in different locations; protective bases that protect the basins from sharp-edged parts; and a variety of brushes and filters that support the different cleaning requirements.



Lid

Protects from contamination and reduces evaporation of cleaning fluid.

G50327 for BIO-CIRCLE GT Compact

G60330 for BIO-CIRCLE GT Maxi



Protective bottom

Made from perforated sheet metal, facilitates tilt-free work and protects the basin from sharp-edged parts.

G50326 for BIO-CIRCLE GT Compact

G60230 for BIO-CIRCLE GT Maxi



Brushes

(flushed with cleaning agents)

G20726 Flow-through brush

Supports cleaning

G20729 Flow-through brush

with medium-hard bristles, straight

G28526 Flow-through brush, angled

Supports cleaning in nooks and crannies that are difficult to reach

G20727 Flow-through brush wide, angled

G27326 Flow-through brush with soft bristles (Nylon 0.3 mm).

For cleaning sensitive parts without damaging the material



Mobility Kit

The sturdy guiderails, with castors (fitted with wheel stop and non), make the device mobile and hence flexible to use.

2 SS guiderails with wheel stop/swivel castors

G50427 for BIO-CIRCLE GT Compact

G60427 for BIO-CIRCLE GT Maxi



Filter

Inserts for filter housings

(nylon filters, washable;

coil cartridge filters, non-washable)

G22026 Nylon filter core support

Supports the replaceable nylon filter

G28326 Nylon filter 100 µm, blue

G28726 Nylon filter 150 µm, brown

G28426 Nylon filter 200 µm, green

G21926 Nylon filter 350 µm, grey

G22726 Coil cartridge filter 100 µm

Trading unit: 6 pcs

G22826 Coil cartridge filter 200 µm

Trading unit: 6 pcs



Filter accessories

G54126 Wrench for filter housing



Filter bags

The filter bags are fixed under the basin drain by means of a bracket.

G54626 Filter bag nylon 50 µm washable

G54726 Filter bag nylon 100 µm washable

G54426 Filter bag polypropylene needle felt 5 µm

G54526 Filter bag polypropylene needle felt 25 µm

CLEANING SYSTEMS

Dermatologically
tested!

BIO-CIRCLE L

*Cleaner with
natural microorganisms*

- ▶ Product description in accordance with ÖNORM B 5105
- ▶ Optimally adjusted to everyday soiling
- ▶ Compatible with oil separators
- ▶ TESTED IN ACCORDANCE WITH ÖNORM B 5105 – registration number: ON-N 2011 140
- ▶ Fresh apple scent
- ▶ Special corrosion inhibitors provide temporary protection after cleaning
- ▶ NSF-certified
- ▶ Improved skin protection – skin friendliness has been dermatologically tested
- ▶ Surfactants on the basis of renewable raw materials
- ▶ No labelling required under the CLP Regulation

BIO-CIRCLE L Ultra

*Ultra-strong cleaner with
natural microorganisms*

- ▶ Removes persistent contaminations, such as bitumen, anti-rust waxes, burnt-in greases and oils, carbon deposits, and paint
- ▶ Special corrosion inhibitors provide temporary protection after cleaning
- ▶ NSF-certified
- ▶ Works on the basis of Nature-Boost ingredients
- ▶ No labelling required under the CLP Regulation

BIO-CIRCLE L Heavy Duty

*Strong cleaner with
natural microorganisms*

- ▶ Removes even heavy oils and greases
- ▶ Improved cleaning performance especially for persistent contaminations
- ▶ Without scent – can be added as required
- ▶ Special corrosion inhibitors provide temporary protection after cleaning
- ▶ skin friendliness has been dermatologically tested
- ▶ For temperatures of up to 45 °C/113 °F
- ▶ Surfactants on the basis of renewable raw materials
- ▶ No labelling required under the CLP Regulation

A02026 20 L jerrycan

A20026 200 L plastic drum

A10026 1000 L IBC

A02072 20 L jerrycan

A20072 200 L plastic drum

A10072 1000 L IBC

A02098 20 L jerrycan

A20098 200 L plastic drum

A10098 1000 L IBC



BIO-CIRCLE Liquids

natural – simple – profitable



Specifically developed for use in the BIO-CIRCLE parts washing systems. BIO-CIRCLE Liquids do their cleaning based on water. They are specialized in neat and thorough cleaning solutions and effectively remove oils, greases and particulate pollution. The natural micro-organisms biodegrade the ingressed oil. User-friendly, eco-friendly and economical – with the power of Nature. BIO-CIRCLE Liquids guarantee long service lives and a high useful life expectancy in combination with a constantly high cleaning performance. The ready-to-use Liquids contain no solvents, so they avoid VOC emissions and meet the requirements of the VOC Directive. No labelling is required under the CLP Regulation, which means they are easy and safe to use, to store and to transport, and they do not pit surfaces (no corrosion).



BIO-CIRCLE L **Aluminium**

Aluminium cleaner with natural microorganisms

- ▶ For the cleaning of sensitive materials, e.g. aluminium
- ▶ Virtually residue-free
- ▶ Without scent – can be added as required
- ▶ NSF-certified
- ▶ Surfactants on the basis of renewable raw materials
- ▶ Skin friendliness has been dermatologically tested
- ▶ No labelling required under the CLP Regulation
- ▶ Tested by Lufthansa
- ▶ Removes machining oils, cutting coolants, anti-corrosion products, and other contaminations

BIO-CIRCLE L **Blue**

Cold cleaner with natural microorganisms

- ▶ Effective cleaning in a cold state
- ▶ Cleaning and degreasing of small parts in workshops, industries and service
- ▶ Water-based cleaning fluid – non-flammable
- ▶ Clean Blue cleaner – free from VOC in accordance with 1999/13/EC
- ▶ No labelling required under the CLP Regulation
- ▶ pH-neutral – low risk of skin irritation
- ▶ Surfactants on the basis of renewable raw materials

BIO-CIRCLE L **Turbo**

Low-foaming cleaner with natural microorganisms

- ▶ For mechanical cleaning in the BIO-CIRCLE Turbo
- ▶ For temperatures of up to 50 °C/122 °F
- ▶ With corrosion protection
- ▶ No labelling required under the CLP Regulation

A02099 20 L jerrycan

A20099 200 L plastic drum

A10099 1000 L IBC

A02090 20 L jerrycan

A20090 200 L plastic drum

A10090 1000 L IBC

A02082 20 L jerrycan

A20082 200 L plastic drum

A10082 1000 L IBC



Nonfood Compounds
Program Listed (A1)
Registration # 146573



CLEANING
SOLUTIONS

CLEANING SYSTEMS

Service and cleaning

Regular service and care ensure the safety and reliability of our devices. Just like your car, also the BIO-CIRCLE requires regular cleaning and servicing in order to ensure the functionality of the device.





**In order to ensure perfect functionality of our devices,
we offer you a special service:**

- ▶ Thorough internal and external cleaning of the BIO-CIRCLE with environmentally compatible Bio-Circle products
- ▶ Checking your device for the functionality of the installation parts
- ▶ Cleaning and replacing if necessary of aerator, hoses, filter inserts, pump, etc.
- ▶ Cleaning of the BIO-CIRCLE Liquid by means of a fine mesh filter
- ▶ Removing the sludge residues from the bottom
- ▶ Refilling with the cleaned BIO-CIRCLE Liquid and, if necessary, topping up with fresh BIO-CIRCLE Liquid to the optimum filling level

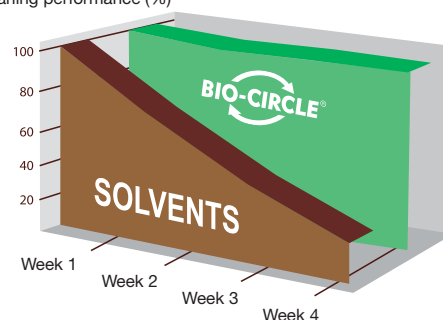
The advantages at a glance

Aqueous-based biological parts cleaning with natural microorganisms. Oils and greases are immediately decomposed ecologically, which guarantees long lifetimes with a constantly high cleaning performance.

- ▶ No solvents, no cold cleaners
- ▶ Aqueous cleaning medium, no fire hazard
- ▶ No hazardous substance and no hazardous materials, hence no special regulations for storage, handling and transportation

CLEANING CONSISTENCY

Cleaning performance (%)



BIO-CIRCLE HP

The BIO-CIRCLE HP (High Pressure) applies a lot of pressure on contaminations!

BIO-CIRCLE HP efficiently combines the advantages of the parts washer with the cleaning result of pressure-washing. The sturdy stainless steel device is easy and safe to use and ideally suited for manual washing.

- Manual cleaning with low pressure/flow brush while the lid is open or closed
- Manual cleaning at high pressure of up to 40 bar
- Large workspace, high payload
- Pre-set optimal cleaning temperature of 45°C/113°F
- Insulated tank – prevents heat losses and saves energy
- 10-Watt LED interior lighting – makes all part geometries visible
- A fan for ventilation of the interior and a manual screen wiper guarantee a clear view



	BIO-CIRCLE HP
Overall width x overall depth (mm)	1150 x 1229
Height with loading hatch closed/open (mm)	1884/2458
Height with loading hatch closed/open (mm)	1083-1228
Overall width of available surface W x D x H (mm)	860 x 580 x 480
Maximum payload (kg)	350
Cleaning liquid tank – capacity (L)	100
Total weight of the cleaning device (kg) excl. tank filling, payload and supplementary equipment	250
Connected value total (kW) excl. supplementary equipment approx.	2.5
Power supply (V)/frequency (Hz)	230/50
Compressed-air hose Ø 10 mm (bar)	6 max.
Spray pressure adjustable approx. (bar)	20–40
High-pressure pump motor (kW)	1.6
Electric heating in the washing tank (kW)	0.65
Treatment temperature (guide value) (°C)	45
Order number	G30028



Dermatologically
tested!

BIO-CIRCLE L Turbo
– The perfect cleaner and de-greaser especially developed for use in the BIO-CIRCLE HP

VOC
free!

NATURE
BOOST




BIO-CIRCLE Turbo

2 in 1 – automatic and manual cleaning

The BIO-CIRCLE Turbo Stainless Steel – the efficient combination of fully automated and manual cleaning with the biological BIO-CIRCLE L Turbo cleaning medium.

- ▶ Solid stainless steel design with a high payload, heatable, factory-set to an optimal 50°C/122°F
- ▶ Sturdy stainless steel rack with mechanical spinning, touch button to spin the rack in idle mode for easy loading and unloading and for manual cleaning
- ▶ High spray pressure
- ▶ Precise manual cleaning by means of a flow brush or a nozzle
- ▶ A safety switch prevents the pump motor from running with the lid open – safe handling guaranteed
- ▶ Lid with inspection window and gauntlet gloves, interior lighting
- ▶ Ergonomic hand spray gun with quick release fastener for cleaning brush and variable cleaning nozzle (generates a point jet or a fan-shaped jet); fast drying possible by means of a pneumatic spray gun
- ▶ Tank with slightly tilted bottom for faster emptying, tank cover with filter elements beneath the rack, dry running protection



 We have been conferred the 2008 Industry Award "Environmental Technology" by the Initiative Mittelstand

**INDUSTRIE
PREIS 2008**



	BC Turbo 800	BC Turbo 1000	BC Turbo 1200
Overall width x overall depth (mm)	1170 x 1075	1330 x 1240	1563 x 1510
Height with lid closed and lid open with angled exhaust duct (mm)	1585/2035	1580/2200	1734/2380
Inner diameter rack, approx. (mm)	775	975	1175
Useful height max. (mm)	400	450	630
Maximum payload (kg)	150	350	350
Cleaning liquid tank – capacity (L)	160	275	380
Total weight of the cleaning device (kg)	350	370	420
excl. tank filling, payload and supplementary equipment			
Connected value total (kW) excl. supplementary equipment approx.	5.5	9	9
Power supply (V)/frequency (Hz)	400/50	400/50	400/50
Compressed-air hose Ø 10 mm (bar)	6 max.	6 max.	6 max.
Pump – automatic cleaning: flow rate (m³/h/delivery head m H₂O)	12.0/38	12.0/38	12.0/38
Pump – manual cleaning: flow rate (m³/h/delivery head m H₂O)	4.8/27	4.8/27	4.8/27
Electric heating in the washing tank (kW)	4.5	6	6
Treatment temperature (guide value) (°C)	50+/-2	50+/-2	50+/-2
Order number	G40027	G42027	G43027

CLEANING SOLUTIONS

CLEANING SYSTEMS

Tip:

Thanks to our comprehensive accessories range we can guarantee individual and processoriented customizations.

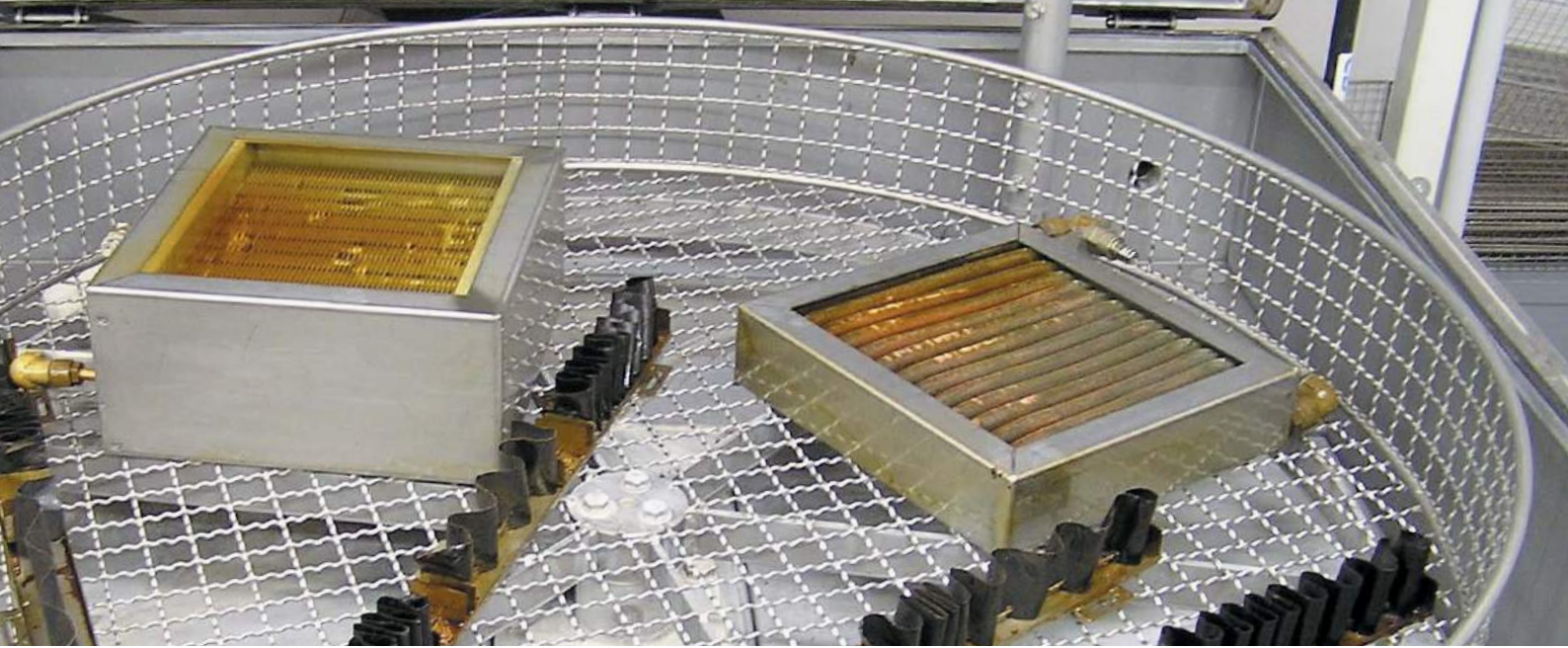


**STAR
cleaning**
pp.28/29

ROSTFREI
Edelstahl



	HTW-II 800	HTW- II 1000	HTW-II 1200
Overall width x overall depth (mm)	1121 x 1075	1375 x 1195	1605 x 1470
Height with lid closed and lid open with angled exhaust duct (mm)	1361 x 1766	1524 x 2005	1580 x 2300
Inner diameter rack, approx. (mm)	775	975	1175
Useful height max. (mm)	400	450	650
Maximum payload (kg)	150	250	350
Cleaning liquid tank – capacity (L)	160	300	485
Total weight of the cleaning device (kg) excl. tank filling, payload and supplementary equipment	300	350	400
Connected value total (kW) excl. supplementary equipment approx.	6	8.5	11.5
Power supply (V)/frequency (Hz)	400/50	400/50	400/50
Pump – automatic cleaning: flow rate (m³/h/delivery head m H ₂ O)	4..8/38	12.0/38	12.0/38
Electric heating in the washing tank (kW)	4.5	6	9
Treatment temperature (guide value) (°C)	10-85+/-2	10-85+/-2	10-85+/-2
Order number	G12630B	G12640B	G12650B



HTW – Hot-Water Parts Washer

Sturdy, fully automatic cleaning device for one-step cleaning and degreasing of small parts

A low-maintenance high-pressure spray system, equipped with a three-dimensional nozzle system, provides for thorough cleaning and degreasing of tools and other parts. Due to the powered rotating rack and the spray pressure, the Bio-Circle cleaners in the hot-water parts washer have an optimal effect on the items to be cleaned. The ideal system for parts cleaning e.g. in service and maintenance, production, and manufacturing.

- ▶ **Completely made from stainless steel, for mechanical cleaning in the acidic, neutral and alkaline range**
- ▶ **Power-actuated rotating rack with motor protection**
- ▶ **Powerful stainless steel pump**
- ▶ **Compact design, easy handling, high cleaning power**
- ▶ **Effective and economical**
- ▶ **Perfect for parts cleaning in service and maintenance, production, manufacturing, and the service industry**
- ▶ **Energy-efficient**
- ▶ **Outstanding cleaning results in combination with the STAR cleaners**



US – Ultrasonic Cleaning Devices and Multifrequency Devices

Ultrasonic cleaning is a very effective and gentle cleaning method. The ultrasound generates millions of minute vacuum bubbles in the cleaning medium that will generate high pressure when they collapse. This combination yield results especially on parts with complex geometries.

Our device series:

- **US cleaning devices** in 8 different device sizes featuring an effective 37 kHz ultrasonic power.
- **Multifrequency Devices** in 6 different device sizes. You can choose between strong intensive cleaning (25 kHz) and gentle fine cleaning (45 kHz).
- **Our Multifrequency Device range will change at the end of 2016.**



STAR US cleaning	Aluminium	Galvanized surfaces	Non-ferrous metals	Brass	Stainless steel	Steel	Plastics	Alkaline-resistant surfaces	Acid-resistant surfaces
STAR US 1	X	-	X	X	X	-	X	-	X
STAR US 2	-	-	-	-	X	X	X	X	-
STAR US 3	-	-	-	-	X	X	X	X	-
STAR US 4	X	X	X	X	X	X	X	X	-
STAR US 5	-	-	-	-	X	X	X	X	-

VOC
reduced!

VOC
free!

Ultrasonic Cleaning Devices	US 2,75	US 5,75	US 9,5	US 12,75	US 18	US 28	US 45	US 90
Capacity (L)	2,75	5,75	9,5	12,75	18	28	45	90
Internal size of basin L/W/H (mm)	198/106/50	255/115/75	255/200/75	250/190/115	280/250/115	455/250/115	455/270/194	545/450/250
Overall size of device L/W/H (mm)	300/179/214	365/186/264	365/278/264	365/278/321	390/340/321	568/340/321	615/370/467	715/570/467
Power consumption (W)	280	550	550	1000	1000	1500	2000	2800
Order number	G13915	G13925	G13935	G13945	G13910	G13920	G13930	G13940

(Technical details of multi-frequency devices will remain valid until the end of 2016.)

*Multifrequency	US 22	US 45	US 70	US 97	US 133	US 215
Capacity (L)	22	45	70	97	133	215
Internal size of basin L/W/H (mm)	255/230/165	415/255/210	400/255/360	490/525/200	480/525/300	630/575/365
Overall size of device L/W/H (mm)	405/449/800	575/479/800	575/479/800	676/750/800	676/750/800	826/800/800
Power consumption (W)	2130	3910	6810	7620	9520	9520
Order number	G14010	G14020	G14030	G14040	G14050	G14060

Parallel Plate Separator

High-performance cost-efficient device for extending the lifetimes of water-based process baths

Increasing requirements on the purity levels and service lives of water-based cleaning- and degreasing baths, grit cooling agent emulsions, and other industrial fluids, require an effective solution. The Parallel Plate Separator (PPT) removes oil, sludge, suspended solids and sediments from the moving and warm process baths in a highly effective and automatic way while the plant is in operation. The PPT operates on the basis of the combined effect of gravitation and coalescence, without use of chemical additives. It is universally applicable with cold and warm process baths, and in a pH range between 1 and 14.

- **Service life extension**
- **Guarantees the constantly good quality and purity of process baths**
- **Economical**
- **Low operating costs**



Suction devices



Thuringia design



Hilti design



Trade fair design



HTW design

	PPT Mini	PPT Compact	PPT 001	PPT 002	PPT 003
Overall dimensions LxWxH (mm)	295 x 125 x 275	495 x 145 x 400	745 x 245 x 445	1100 x 450 x 550	1400 x 450 x 550
Flow rate (L/h)	100	200	800	1500	2500
Capacity	Up to approx. 2.5 m3/h	Up to approx. 2.5 m3/h	Up to approx. 2.5 m3/h	Up to approx. 2.5 m3/h	Up to approx. 2.5 m3/h
Operating temperature	Up to 90 °C/194 °F	Up to 90 °C/194 °F	Up to 90 °C/194 °F	Up to 90 °C/194 °F	Up to 90 °C/194 °F
Operating pressure	Any desired	Any desired	Any desired	Any desired	Any desired
Material	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301
Order number	G11900	G11940	G11910	G11920	G11930

CLEANING SYSTEMS

- ▶ Stainless steel media vessel with integrated drain
- ▶ Splash-proof electrics
- ▶ Stainless steel heating with adjustable thermostat (up to 90°C/194°F) – factory-set to an optimal 60°C/140°F
- ▶ Sturdy and powerful centrifugal pump
- ▶ Stainless steel float switch for level monitoring – dry-run protection for pump and heating
- ▶ Stainless steel filter to protect the pump from solids
- ▶ Hose holder for compact and space-saving hose storage, integrated in a drip pan with drain
- ▶ Delivered ready for connection with acid- and alkali-resistant hoses
- ▶ Made entirely from stainless steel
- ▶ Mobile device – mounted on a stainless steel trolley with rubber-clad castors
- ▶ Easy handling – no need for dismantling components



	RWR 80 L	RWR 300 L	RWR 500 L
Overall width (mm)	720	720	2350
Overall depth (mm)	1200	1300	1010
Height with loading hatch closed (mm)	940	1280	1460
Cleaning liquid tank – capacity (L)	100	300	500
Useful volume approx. (L)	80	250	450
Total weight of the cleaning device (kg)	110	150	220
excl. tank filling, payload and supplementary equipment			
Connected value total (kW) excl. supplementary equipment approx.	6	15	18
Power supply 3-phase current (V)/frequency (Hz)	400/50	400/50	400/50
Ball valve for draining the washing liquid tank (inch)	1 1/4	1 1/4	1 1/4
Pump (m³/h/kW)	2.5/0.55	15/2.5	15/2.5
Electric heating in the washing tank (kW)	4.5	2x6	2x7.5
Treatment temperature (guide value) (°C)	60	60	
Order number	G29000	G29200	G29400

RWR

Cleaning device for pipes, heat exchangers and temperature control units

Over time, limescale, corrosion and other contaminations form deposits and then incrustations on the inside of pipes, heat exchangers, coolers, and temperature control units. Failing to remove these contaminations on a regular basis will lead to a decrease in efficiency of the devices. The RWR has been specifically developed for these cleaning tasks.



RWR – the optimal cleaners

Power Cleaner DB

Efficient removal of contaminations, such as urine scale, limescale and corrosion, with simultaneous germ-reducing effect.

Smoke Resin Remover DB

Reliable removal of greases, oils, and carbon deposits.

Sieve filter for coarse contaminations in RWR 500 DB



Filter fleece for fine contaminations in RWR 500 DB



Inlet



Centrifugal pump



Electrical control cabinet



Return pump



CLEANING SYSTEMS

- ▶ **Stainless steel 80 L media vessel with integrated drain and splash-proof electrics**
- ▶ **Stainless steel heating with adjustable thermostat (up to 90°C/194°F) – factory-set at an optimal 60°C/140°F**
- ▶ **Sturdy AODD pump**
- ▶ **Dry-run protection for pump and heating**
- ▶ **Stainless steel filter to protect the pump from solids**
- ▶ **Hose holder for compact and space-saving hose storage, integrated in a drip pan with drain**
- ▶ **Mobile system – mounted on a stainless steel trolley with rubber-clad castors**
- ▶ **Delivered ready for connection with acid-resistant hoses**
- ▶ **“Dual” models feature an integrated flushing device for corrosion protection**



	RWR 80 L KST Manual	RWR 80 L KST Dual Manual	RWR 80 L KST Automatic	RWR 80 L KST Dual Automatic
Overall width (mm)	1200	1500	1200	1500
Overall depth (mm)	770	770	770	770
Height with loading hatch closed (mm)	1000	1000	1000	1000
Cleaning liquid tank – capacity (L)	100	100	100	100
Useful volume approx. (L)	80	80	80	80
Total weight of the cleaning device (kg) excl. tank filling, payload and supplementary equipment	110	130	110	130
Connected value total (kW) excl. supplementary equipment approx.	4.9	4.9	4.9	4.9
Power supply 3-phase current (V)/frequency (Hz)	400/50	400/50	400/50	400/50
Ball valve for draining the washing liquid tank (inch)	1 1/4	1 1/4	1 1/4	1 1/4
AODD pump (m³/h)	0.72-3.3	0.72-3.3	0.72-3.3	0.72-3.3
Centrifugal pump (m³/h / kW)	/	4.3/0.9	/	4.3/0.9
Electric heating in the washing tank (kW)	4.5	4.5	4.5	4.5
Treatment temperature (guide value) (°C)	60	60	60	60
Compressed-air hose Ø 10 mm (bar)	6 max.	6 max.	6 max.	6 max.
Order number	G29027	G29025	G29028	G29024

RWR KST *Cleaning of plastic injection moulding tools*

Contaminations in the cooling ducts of the tools reduce the efficiency of the cooling. The RWR KST cleaning system has been developed for the cleaning and flushing of these cooling ducts. It operates on the principle of recirculation flushing: this saves time and money because there is no complex and time-consuming mounting and dismounting to be done. The tool to be cleaned just has to be equipped with a supply- and a return pipe. The Power Cleaner KST cleaning solution is pumped through the tool.



RWR KST– the best cleaners and rinsing agents

Power Cleaner KST

Removes limescale and corrosion.
Inhibits the formation of slime- and bio films.
Acidic.

Corrosion protection for water-based systems

For flushing the cleaned tools.
Protects from new corrosion.



RWR KST Manual



RWR KST Dual Automatic

RWR-80 L KST Manual	RWR-80 L KST Dual Manual	RWR-80 L KST Automatic	RWR-80 L KST Dual Automatic
<ul style="list-style-type: none"> - Digital flow meter - Compressed air bypass - Manual change of flow direction - Optional extra Flushing device for corrosion protection separate or integrated 	<p>Identical with RWR-80 L KST Manual</p> <p>Additionally equipped with</p> <ul style="list-style-type: none"> + Flow meter under constant pressure (centrifugal pump) + Integrated flushing device for corrosion protection 	<ul style="list-style-type: none"> - Digital flow meter - Compressed air bypass - Automatic change of flow direction - Optional extra Flushing device for corrosion protection separate or integrated 	<p>Identical with RWR-80 L KST Automatic</p> <p>Additionally equipped with</p> <ul style="list-style-type: none"> + Flow meter under constant pressure (centrifugal pump) + Integrated flushing device for corrosion protection

CLEANING SYSTEMS



CLEAN BOX

The CLEAN BOX is the ideal box for mobile cleaning, degreasing, derusting, soaking, pre-cleaning, and much more. The Box consists of the immersion box, the lid and the immersion basket. With a 180° turn the immersion basket becomes stackable on the inside edge.



CLEAN BOX – 180° turn for convenient draining and emptying.

	CLEAN BOX	CLEAN BOX Mobil
Immersion box		
External dimensions W x D x H (mm)	600 x 400 x 300	600 x 400 x 300
Material	Bottom and sides closed with HDPE handle openings, green	Bottom and sides closed with HDPE handle openings, green
Filling quantity (L)	approx. 50	approx. 50
Immersion basket		
External dimensions W x D x H (mm)	600 x 400 x 300	600 x 400 x 300
Material	Bottom and sides closed with HDPE handle openings, green	Bottom and sides closed with HDPE handle openings, green
Lid		
External dimensions W x D x H (mm)	600 x 400	600 x 400
Material	made of HDPE, green	made of HDPE, green
Rollwagen	-	
External dimensions W x D x H (mm)	-	620 x 420 x 155
Material	-	ABS frame (black) with PA castors (white), ø 100 mm
Maximal Payload (kg)	-	with locking brake 250
Order number	H00040	H00042



CLEAN BOX

The CLEAN BOX consists of the immersion box, the lid and the immersion basket, and can be used flexibly as an immersion box, transport box or for draining. Ideal Bio-Circle products for the CLEAN BOX are CB 100, GS 200 and BIO-RUST. The CLEAN BOX is robust and has been designed for practical mobile use of water-based acidic and also alkaline Bio-Circle cleaners. The CLEAN BOX Mobile is easy to handle, stackable and mobile thanks to the trolley.

CLEAN BOX Flow

Cordless cleaning directly on the work piece.

The CLEAN BOX Flow is a cleaning system that can be used flexibly. With its mobile trolley the CLEAN BOX Flow can be placed directly next to the parts to be cleaned. The battery-powered pump and the washing brush facilitate easy cleaning in virtually any place. The cleaning medium is filtered during the cleaning of the work piece, which ensures longer service life. The CLEAN BOX Flow is sturdy and has been developed for practical use with the Bio-Circle cleaners. The mobile trolley features storing space for jerrycans or work pieces. The CLEAN BOX Flow consists of the immersion box with a 12 V pump, storage battery and washing brush, the lid and the trolley.

- ▶ **Manual cleaning with the washing brush**
- ▶ **Mobile trolley**
- ▶ **Storing space for jerrycans or work pieces**
- ▶ **Battery-powered pump, easy cleaning (storage battery and charger included)**
- ▶ **Cleaning media: CB 100, CB 100 Alu, and CB 100 Blue**



CLEAN BOX Flow
– with integrated pump and storage battery



CLEAN BOX Flow

H00044 CLEAN BOX Flow

with two-level trolley, incl. washing brush, pump and storage battery

H00045 CLEAN BOX Flow

with trolley, incl. washing brush, pump and storage battery

CLEAN BOX Max 1 und Max 2

Efficient cleaning of big parts



With the CLEAN BOX Max 1, CLEAN BOX Max 2, and CLEAN BOX Flex it is easy and safe to clean big, bulky or complex parts. The sturdy systems stand out for their top quality. Collecting trays for the CLEAN BOX Max 1 and CLEAN BOX Max 2 approved in compliance with the WHG [Water Resources Act] are available as an option. All boxes are equipped with a circulation pump and a sturdy brush.

The cleaning platform consists of a storage tank and a comfortable working platform. The platform features openings that safely return the cleaning fluid into the tank. The integrated flow nozzle with washing brush and hose connection runs by a feed pump. With its electro-pneumatic ON/OFF foot switch the pump is easy to operate. A control lamp indicates whether the pump is switched on.

Plug-in stainless steel control cabinet suitable for all CLEAN BOX Max/Flex devices.



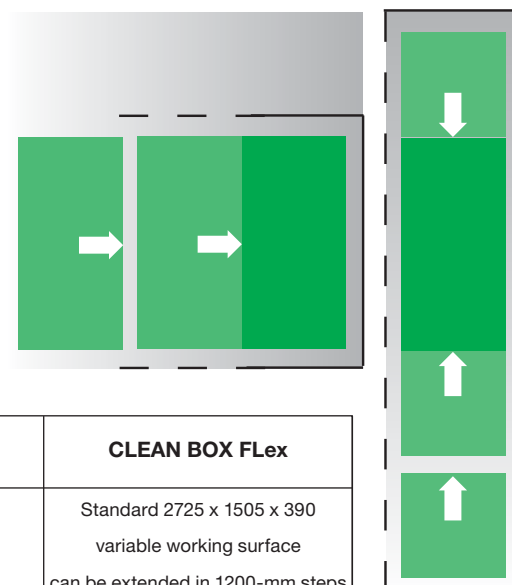
CLEAN BOX Flex

A flexible and modular system

The cleaning platform comprises an integrated WHG [Water Resources Act]-approved collecting tray with a leakage inspection hole, a storage tank and a lid. A grid on the working platform facilitates effective cleaning of big and bulky parts. By means of the feed pump the cleaner reaches the integrated flow nozzle with washing brush.



Upon request, the CLEAN BOX Flex can be extended in depth and/or width in 1200-mm steps, so it can be geared to the cleaning requirements in an optimal and individual way.



	CLEAN BOX Max 1	CLEAN BOX Max 2	CLEAN BOX FLeX
Overall dimensions LxWxH (mm)	1420 x 1420 x 520	2400 x 1420 x 740	Standard 2725 x 1505 x 390 variable working surface can be extended in 1200-mm steps
Useful work surface LxW (mm)	1220 x 1220	2250 x 1220	variable
Material	PE	PE	PE-HD
Payload	1000 kg	1000 kg	1000 kg
Useful volume min.	200 L	700 L	250 L
Useful volume max.	300 L	1000 L	350 L
Total useful volume	590 L	1400 L	355 L
Working pressure	0.2 bar	0.2 bar	0.2 bar
Weight	100 kg	160 kg	250 kg
pH-value working range	4.5–12	4.5–12	4.5–12
Rated input voltage	230 V/1.3 A	230 V/1.3 A	230 V/1.3 A
Frequency	50 Hz	50 Hz	50 Hz
Power input	330 W	330 W	330 W
Operating temperature	Ambient temperature	Ambient temperature	Ambient temperature
Operating pressure max.	2 bar	2 bar	2 bar
IP	68	68	68

CLEANING SYSTEMS

PROLAQ Compact

*Manual cleaning system for all
varnish application- and varnish processing tools*

The PROLAQ Compact can be used flexibly for the cleaning of small to medium-sized items, such as spray guns, nozzles or tube systems. The system works without electricity and features a flow brush, a compressed air gun and a funnel for draining the gun.

The sturdy plastic (PE) device features an ergonomic design and high stability. The technical module is low-maintenance and features an AODD pump and a compressed air connection.

- Compact design
- Comfortable working height
- Low-maintenance
- AODD pump, 6 bar
- Compressed air connection
- Collection tray for varnish particles
- Coarse and fine filters
- Funnel for rinsing
- Mobility kit
- Splash guard lid (optional)
- Stainless steel protective base (optional)



	PROLAQ Compact
Dimensions	H at the back 1060/front 980 x W 820 x D 600 mm
Working height	970/800 mm
Useful work surface	740 x 460 mm
Empty weight	approx. 62 kg
Payload	100 kg
Minimum capacity	40 l
Maximum capacity	60 l
Tank	Material PE LD
Air pressure	6 max. bar
Pump	AODD pump PTFE diaphragm
Order number	G90010



PROLAQ Cleaning after varnishing

The PROLAQ product range revolutionizes the cleaning of all varnish application- and varnish processing tools. The PROLAQ L cleaners can be used in manual and mechanical applications and score with their reduced VOC content and excellent cleaning performance. The PROLAQ Compact and PROLAQ Auto cleaning systems feature plenty of details that facilitate the work process and contribute to a cost-effective way of working. The 3-stage treatment with coarse filter, sedimentation tank and fine filter extends the cleaners' service life. Praxis analyses show that this system allows the cleaner to be reused 5 to 10 times.

PROLAQ Auto

The manual and automatic cleaning station

PROLAQ Auto combines the manual and automatic cleaning of varnish application- and varnish processing tools. The spray gun can be cleaned manually in the integrated cleaning basin with flow brush. The flow rate of the flow brush is adjusted by means of a ball valve. A footswitch-actuated spray nozzle facilitates rinsing with clear liquid. In a second basin varnish residues can be disposed of, and the gun can be drained completely by means of a funnel. For this, the system features its own compressed air connection for the gun as well as a compressed air gun for drying the cleaned items.

In the integrated automatic box the dismantled flow cup gun is cleaned automatically for 3 minutes. The rinsing function facilitates rinsing of the cleaned gun with 200 mL of unused cleaner.

- ▶ Time-saving and thorough cleaning
- ▶ Recycling system
- ▶ Automatic box
- ▶ Functional magnetic fixture
- ▶ Optimized design for good splash protection
- ▶ Parallel cleaning of gun and cup
- ▶ AODD pump, 6 bar
- ▶ Simultaneous manual and automatic cleaning



	PROLAQ Auto
Dimensions	H 1510 x W 1185 x D 650 mm
Working height	1025 mm
Empty weight	100 kg
Minimum capacity	90 L
Air pressure	7 – 12 bar
Pump	AODD pump PTFE diaphragm
Order number	G90050

CLEANING SYSTEMS

PROLAQ accessories

The ideal accessories for cleaning all around PROLAQ Compact and PROLAQ Auto. The toolbox contains protective goggles, gloves, cartridge filter (25 µm), pre-filter (200 µm), gun cleaning kit (17 pieces) and specially designed fixtures for the PROLAQ Compact. A sturdy lid for the PROLAQ Compact, which may serve as splash protection and can easily be hooked into the rear of the device, is available as an option.



G90010-01 PROLAQ Toolbox with accessories

with aluminium carrying handle, colour: green

G90010-02 PROLAQ coil cartridge filter 25 µm

G90010-03 PROLAQ pre-filter 200 µm

G90010-04 PROLAQ disposable gloves, grey, size XL

trading unit: 50 pcs. (box)

G90010-05 PROLAQ gun cleaning kit, 17 pieces

G90010-07 PROLAQ Toolbox holder

G90010-08 PROLAQ flow brush for PROLAQ Compact

G90010-09 PROLAQ flow brush, medium-hard, for PROLAQ Compact

The PROLAQ L range

The PROLAQ L cleaners impress with their incredibly strong cleaning performance. The safe, eco-compatible cleaners remove undried paint, varnish and printing ink. Wherever pre-cleaning used to be done with cellulose thinner, or cleaning used to be done with fresh solvents such as acetone, PROLAQ L provides a remedy. No more unpleasant odours, no fire hazard, no environmental hazard. The VOC-reduced cleaners advocate employee protection and occupational health and safety. The powerful PROLAQ L cleaners are just as efficient as conventional cleaners. They have been tested with solvent – as well as with water-based varnishes. In addition, they are recyclable, which makes them reusable.

PROLAQ L 100 **PROLAQ L 500**

Low-VOC varnish remover

- ▶ Primarily for water-based varnish and paint
- ▶ Suitable for the cleaning of different varnishing systems
- ▶ Cleans spray guns, hoses, cylinders, suction supports, pumps, varnish ducts, etc.
- ▶ Cleans filters, brushes, paint rollers
- ▶ VOC-reduced (EC: 11 % VOC content; CH: 18 % VOC content)
- ▶ For mechanical and manual use
- ▶ Recyclable
- ▶ Non-flammable

VOC-reduced varnish remover

- ▶ Primarily for varnish and paint containing solvents
- ▶ For mechanical and manual use
- ▶ VOC-reduced (EC: < 20 % VOC content; CH: < 36 % VOC content)
- ▶ Cleans filters, brushes, paint rollers
- ▶ For the cleaning of different varnishing systems
- ▶ Cleans suction supports, filters, varnish ducts, spray guns, hoses, and cylinders
- ▶ Recyclable
- ▶ Non-flammable



A02063 20 L jerrycan

A20063 200 L plastic drum

A10063 1000 L IBC

Hazard warnings: Eye Irrit. 2

A02017 20 L jerrycan

A20017 200 L plastic drum

A10017 1000 L IBC

Hazard warnings: Eye Irrit. 2



CLEANING SYSTEMS

*Quality and safety as the basis of the perfect symbiosis
of economy, ecology and performance.*



BIO-CIRCLE at BMW

„The BIO-CIRCLE is applied in the maintenance of the paint-shop for the cleaning of PVC-supplysystems. To be described in detail: the PVC-layer is superimposed by a sealing-robot onto the car body to seal several spots in the wheelhouses. Before the regular maintenance of these supply systems they are cleaned in the BIO-CIRCLE. Amongst many other cleaners the BIO-CIRCLE Cleaner shaped up as the best cleaner by far.“
Alexander Köppl, BMW Group Regensburg / TR-312, IH-Planer Lack_W6



ZF Friedrichshafen about BIO-CIRCLE

„Our employees are very satisfied with the BIO-CIRCLE. This is the best purchase for a long time. From my side I can absolutely recommend your product.“
Dieter Lorc, Fertigungsmeister FA-S3, ZF Friedrichshafen AG



MIELE about BIO-CIRCLE

„We at MIELE use the BIO-CIRCLE in the maintenance of our machines. We replaced the solvent based parts washers by the BIO-CIRCLE because we wanted to reduce hazardous materials and provide our employees a better working condition. The BIO-CIRCLE cleans at least as good as fresh solvents cleaners and at the same time we do something for the environment, because the VOC-emissions are reduced. We can say that the BIO-CIRCLE is all in all a satisfying system!“
Heinz-Theo Wolfgarten, Miele & Cie. KG Euskirche



BIO-CIRCLE at Air Alsie

„We had been looking for a new parts washer since our old white spirit based parts washer wasn't very good for aircraft wheels. When we agreed to get a demonstration of the BIO-CIRCLE washer I was sceptic, especially when I learned that it was environment friendly. We tried it on an aircraft wheel and was very impressed with its ability to clean the wheel even without using the time to let it soak first. The technicians are very happy to get rid of the white spirit which made you dizzy when working for hours with it. The price is very competitive considering what it does. I give it my warmest recommendations.“ Lars Jensen, Productionmanager, Air alsie

AUTRASYS Clean

The efficient, fast and safe way of applying a cleaner

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 30 L jerrycan or the 200 L plastic drum, and the fluid can then be applied to the surface with the aid of compressed air. Ideally suited for the application of Bio-Circle cleaners.

- ▶ **High efficiency thanks to micro-fine spray mist**
- ▶ **Eco-friendly conventional compressed air as a propellant**
- ▶ **Adjustable spray power**
- ▶ **Comfortable working, also overhead**
- ▶ **Safety: safety valve will open at 0.2 bar**
- ▶ **Low disposal costs, not much waste**



Please note:
Clean the cleaning nozzle at regular intervals!

Please note:
Observe occupational exposure limit values!



	AUTRASYS Clean
Jerrycan inlet pressure (bar)	0.1 max.
Plastic drum inlet pressure (bar)	0.1 max.
Spray gun air pressure (bar)	7.0 max.
Safety valve opening pressure (bar)	0.2 max.
Hose length (m)	7.5
Consumption (mL/min)	90 – 200
Jerrycan thread	DIN 51/DIN 61
Plastic drum thread	BSC 56 x 4
Order number	G80001

CLEANING
SOLUTIONS

PROTECTING

Surface protection

When people talk of corrosion (Latin for “gnawing away”), they mostly mean rust. Rust develops from iron or steel through oxidation with oxygen in the presence of humid air or water. The metal is coated with an oxide film. The oxide film of the iron is porous and can splinter off in scales. Iron metal that has not yet corroded is exposed, and the rusting process proceeds. Bio-Circle anti-corrosion products prevent or inhibit corrosion on items during their use. The temporary corrosion protection by means of oil or wax serves to guarantee the functionality of the protected parts until their employment.

High-Performance Anti-Rust Oil

Liquid anti-corrosion oil

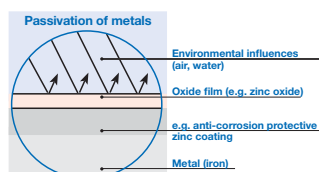
- ▶ Protects metals and machine parts before, during and after processing as well as during storage inside and outside of buildings
- ▶ Exceptionally high neutralizing capacity
- ▶ Reliable long-term protection against corrosion
- ▶ Corrosion tests
- ▶ Test in the humidity chamber DIN 51 359
- ▶ Seawater immersion test DIN 51 358
- ▶ Hydrobromic acid immersion test DIN 51 357

B50013 500 mL plastic bottle

Trading unit: 20 x 500 mL (1 box)

B01013 10 L jerrycan

B03013 30 L jerrycan



High-Performance Anti-Rust Wax

Transparent long-term corrosion protection

- ▶ Protects all metals from corrosion during open-air storage and transport
- ▶ Highly flexible and dynamic protective film with excellent metal adherence properties
- ▶ Water-dispersing and seawater-resistant
- ▶ Corrosion test – 240 h salt spray test on a bright steel plate, film thickness approx. 10 g/m³ (one single application)
- ▶ Can be applied in an immersion bath at 20 to 25 °C (68 to 77 °F) for the treatment of hollow bodies

B40011 400 mL aerosol can

Trading unit: 12 x 400 mL (1 box)

B50011 500 mL tin bottle

Trading unit: 20 x 500 mL (1 box)

B01011 10 L jerrycan

B03011 30 L jerrycan

B20011 200 L metal drum

Hazard warnings: Asp. Tox. 1, Flam. Liq. 3, STOT RE 1, STOT SE 3, Aquatic Chronic 2



CLEANING
SOLUTIONS

PROTECTING

Stainless Steel Spray

*Heat-resistant protection from corrosion
and weather effects up to 240 °C/464 °F*

- ▶ Fast-drying anti-corrosion spray made from micro-fine stainless steel powder
- ▶ Scratch-resistant, resistant to bending and impact-proof
- ▶ Highly resistant to acids, liquors and other aggressive environmental influences
- ▶ Water-repellent and viscoelastic for preservation and retouching
- ▶ Universally applicable for all corrosion protection works in the industry, workshops and the building sector, garden and hobby

B40004 400 mL aerosol can

Trading unit: 12 x 400 mL (1 box)

Hazard warnings: Skin Irrit. 2, Aerosol 1, Aerosol 1,
STOT SE 3





Zinc Paste

Elastic abrasion-resistant corrosion protection

- ▶ May be employed on drinking water-carrying systems
- ▶ Zinc content in the dry coating: 95 %
- ▶ Zinc purity: 98.5 – 99.7 %
- ▶ Colour: zinc grey
- ▶ Fast-drying
- ▶ Highly resistant to aggressive environmental influences
- ▶ Zinc paste may be employed on drinking water-carrying systems (upon examination by the DVGW [German Association of the Gas- and Water Sector])

B50003 500 g tin

Trading unit: 12 x 500 g (1 box)

B00103 1 kg tin

Trading unit: 12 x 1000 g (1 box)

B01003 10 kg tin pail

Hazard warnings: Aquatic Acute 1,
Aquatic Chronic 1, Flam. Liq. 3

Zinc Spray

B40007 400 mL aerosol can

Trading unit: 12 x 400 mL (1 box)

Discounts apply to purchases of
2 – 7 boxes, 8 – 24 boxes, 25 – 84 boxes

Hazard warnings: Aquatic Acute 1, Aquatic Chronic 1,
Flam. Aerosol 1

Zinc Paste Silver

High-tech corrosion protection through aluminium- and zinc pigments

- ▶ The surface is covered in a roof tile-like manner, which makes the pigment and epoxy resin unite perfectly
- ▶ Durable corrosion protection
- ▶ Elastic, abrasion-resistant protective layer
- ▶ Colour: metallic glow (Identical to the hue of the hot-dip galvanized zinc coating)
- ▶ Zinc purity: 98.5 – 99.7 %

B50015 500 g tin

Trading unit: 12 x 500 g (1 box)

B00115 1 kg tin

Trading unit: 12 x 1000 g (1 box)

B01015 10 kg tin pail

Hazard warnings: Aquatic Chronic 2, Asp. Tox. 1,
Skin Irrit. 2, Flam. Liq. 3, STOT SE 3

Zinc Spray Silver

B40008 400 mL aerosol can

Trading unit: 12 x 400 mL (1 box)

Discounts apply to purchases of
2 – 7 boxes, 8 – 24 boxes, 25 – 84 boxes

Hazard warnings: Aquatic Chronic 2,
Eye Irrit. 2, Flam. Aerosol 1

CLEANING
SOLUTIONS

LUBRICATING



Lubricants for tools

Lubricants reduce friction between parts moving against or on one another. The Bio-Circle lubricants feature an excellent surface compatibility and are universally applicable. They provide protection at high temperatures, extend tool service lives and have outstanding lubricating properties. Lubricants can be classified according to their state (liquid – solid). Cooling lubricants are indispensable in metal cutting; they are generally used in heavy-duty machine operations, such as drilling and thread cutting, or with high cutting speeds.

Aqua-Form

Deforming wax

- ▶ Water-based
- ▶ For light to medium deformation strains
- ▶ Deforming wax with a high heat transfer coefficient
- ▶ For deformation processes, such as bending, dilating and crimping, of different materials
- ▶ Sheet metal forming and combined cutting and drawing
- ▶ Pipe bending
- ▶ Non-flammable
- ▶ Excellent tool cooling
- ▶ Contains no chlorinated paraffins

C01018 10 L jerrycan

C03018 30 L jerrycan

C20018 200 L plastic drum

Hazard warnings: Skin Sens. 1

Food Tech Oil

Highly refined protective and maintenance oil

- ▶ Lubricating oil based on highly purified oils
- ▶ Universally applicable in the foodstuffs-, beverage- and pharmaceutical industry, in the catering trade, in hospitals etc.
- ▶ For lubricating and servicing items used in the production, treatment or putting in circulation of foodstuffs
- ▶ Good corrosion- and abrasion protection
- ▶ Temperature-resistant up to approx. 150 °C/302 °F
- ▶ May get in touch with foodstuffs in accordance with the German Food, Consumer Goods and Feed Code (LFGB)
- ▶ Free from animal ingredients
- ▶ No labelling required under the CLP Regulation

C40001 400 mL aerosol spray can

Trading unit: 12 x 400 mL (1 box)

C50001 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

C01001 10 L jerrycan

C03001 30 L jerrycan

Hazard warnings: Aerosol: Aerosol 1



Nonfood Compounds
Program Listed (H1)
Registration # 143544

Anti-Seize

Micro-fine high-performance solid-lubricant paste

- ▶ Deposits in fissured and porous sliding surfaces
- ▶ Protects from corrosion, heat freeze and abrasion at temperatures of up to 1200 °C/2192 °F
- ▶ Resistant to cold and hot water, oil, benzine, and most acids and liquors
- ▶ Abrasion-, flash-, and rinsing-proof, free from abrasives
- ▶ Prevents friction corrosion, protects against fretting corrosion, avoids electrochemical corrosion – for more precise torques
- ▶ Protection even at extreme pressures of up to 200 N/mm²
- ▶ Contains no copper, nickel, lead, sulphur, halogens or silicone oil

C20002 200 mL aerosol can incl. brush adapter

Trading unit: 12 x 200 mL (1 box)

C25002 250 g brush tin

Trading unit: 12 x 250 g (1 box)

C40002 400 mL aerosol spray can

Trading unit: 12 x 400 mL (1 box)

C00102 1 kg tin

Hazard warnings: Aquatic Acute 1, EUH208

Aerosol: Aquatic Acute 1, Aerosol 1

Metal-free Anti-Seize

Metal-free, white high-performance lubricant

- ▶ Prevents heat freeze and metal-to-metal contact at temperatures of up to 1400 °C/2552 °F
- ▶ Resistant to hot and cold water, oil, benzine, and most acids and alkalis
- ▶ Sealant for the correction of inaccuracies on flanges and flat gaskets, for more precise torques. Makes unfas-tening hot screws easier and in addition makes them reusable.
- ▶ Protection from striations and seizures even at extreme pressures of up to 200 N/mm²
- ▶ Prevents electrolytic corrosion (galling)

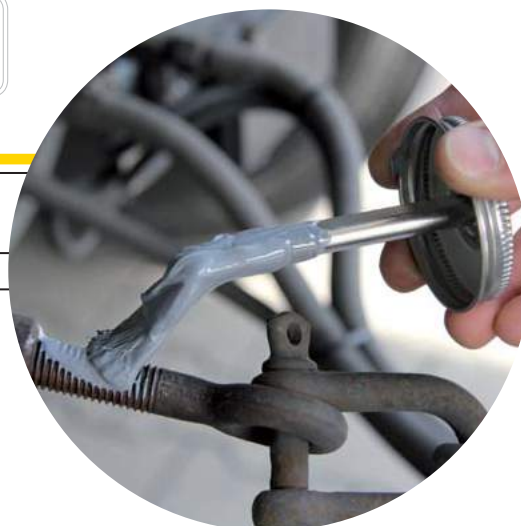
Please note:

Do not use on oxygen systems and in the presence of acetylene!

C25010 250 g brush tin

Trading unit: 12 x 250 g (1 box)

C00110 1 kg tin





Cutting Coolant milky

Cutting coolant containing mineral oil

- ▶ Water-miscible
- ▶ High cooling effect, good corrosion protection
- ▶ Ideal for heavy-duty metalworking operations on iron, steel, non-ferrous metals, aluminium and alloys
- ▶ Boron- and amine-free – in line with state-of-the-art occupational health requirements
- ▶ Good skin-friendliness – dermatological test report available

C01008 10 L jerrycan

C03008 30 L jerrycan

C20008 200 L metal drum

Hazard warnings: Eye Irrit. 2

High-Performance Cutting Oil

Medium-viscosity, water-washable punching- and cutting oil

- ▶ Produced from high-purity paraffinic white oils
- ▶ For all metalworking operations, from simple to sophisticated
- ▶ For all kinds of steels and casting materials, aluminium and non-ferrous metal alloys
- ▶ Contains special additives that are approved for use in food-related areas
- ▶ Oil film can also be rinsed off with warm water
- ▶ Also available as Cool Cut Gel in an aerosol can

Density at 15 °C	0,89 g/mL
Viscosity at 40 °C	35 mm ² /s
Flash point	>100 °C
Pour point	–30 °C



C50004 500 mL squeeze bottle

Trading unit: 20 x 500 mL (1 box)

C01004 10 L jerrycan

C03004 30 L jerrycan

C40004 Cool Cut Gel 400 mL aerosol spray can

Trading unit: 12 x 400 mL (1 box)

Hazard warnings: Irrit. 2, Aerosol 1, Aerosol 1



Tip:
Aerosol can with cutting gel.
Excellent adhesion properties.
Effect without air bubbles.

WELDING
SOLUTIONS

WELDING



We have what you're looking for.

E-WELD products are premium products in the welding sector. The ready-to-use E-WELD products have excellent wetting properties. Their low consumption helps save time and money, and in addition they convince with very good separating properties. The products are solvent- and silicone-free. Galvanizing and varnishing after welding is possible without any problems. The stable emulsion prevents the active substances from separating during storage, so no tedious bottle shaking will be required.



E-WELD 2

Micro emulsion for high-temperature welding

- ▶ Prevents weld spatter from adhering to surfaces
- ▶ Especially suited for multilayer welding
- ▶ Facilitates welding of thin and/or preheated metal sheets
- ▶ No labelling required under the CLP Regulation

D50002 500 mL plastic bottle with trigger

Trading unit: 20 x 500 mL (1 box)

D01002 10 L jerrycan

D03002 30 L jerrycan

D20002 200 L plastic drum

D10002 1000 L IBC

E-WELD 3

Welding separating agent for steel and stainless steel or laser cutting

- ▶ Temporary corrosion protection in combination with cleaning efficiency
- ▶ Prevents weld spatter from adhering to surfaces
- ▶ Protects work pieces, welding nozzles and welding accessories
- ▶ Galvanizing and varnishing after welding is possible without any problems
- ▶ No labelling required under the CLP Regulation

D50008 500 mL PET-bottle with trigger

Trading unit: 20 x 500 mL (1 box)

D01008 10 L jerrycan

D03008 30 L jerrycan

D20008 200 L plastic drum

D10008 1000 L IBC



WELDING SOLUTIONS

WELDING

E-WELD 4

*Separation lotion with
Moses effect guarantee*

- ▶ For steel- and stainless steel welding
- ▶ For the protection of tools, appliances and welding nozzles
- ▶ No adverse effects on downstream processes such as varnishing or galvanizing
- ▶ No unpleasant odours or smoke nuisance
- ▶ Moses effect guarantee
- ▶ No labelling required under the CLP Regulation

D50012 500 mL PET-bottle with trigger

Trading unit: 20 x 500 mL (1 box)

D01012 10 L jerrycan

D03012 30 L jerrycan

D20012 200 L plastic drum

D10012 1000 L IBC

E-WELD ROB

*Separating agent for
robotic welding*

- ▶ Protects the welding nozzle from weld spatter in the automatic cleaning units of the welding robots
- ▶ Extends the service life of the welding nozzles
- ▶ Increases the efficiency of the welding process
- ▶ Does not stick to the nozzles

D01014 10 L jerrycan

D03014 30 L jerrycan

D20014 200 L plastic drum

E-WELD Gel

*Nozzle lubricant for
universal protection*

- ▶ Made of highly pure, light-coloured fats
- ▶ Builds a protective film on the flow- and gas nozzles
- ▶ Prevents weld spatter from burning in
- ▶ Extends the service life of the welding nozzles
- ▶ Protects the nozzle during welding
- ▶ Protects the welding apron, gloves and work boots from weld spatter
- ▶ No labelling required under the CLP Regulation

D20106 200 g tin with magnet

Trading unit: 12 x 200 g (1 box)

D01006 10 L pail



The E-WELD range

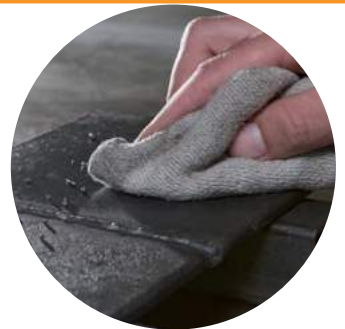
The water-based anti-spatter sprays prevent weld spatter from burning in during MIG/MAG welding and laser cutting. Just take the spray bottle, spray it on, weld, and wipe it off – finished. The anti-spatter spray products have been granted various approvals for trouble-free zinc coating and varnishing after welding. These include approvals issued by Herning Zinc Coating, Volkswagen AG, SLT Laser Technology and the Dresden Institute for Corrosion Protection, to name but a few.



E-WELD Nozzle

High-performance protection spray featuring an inorganic formula

- ▶ The ceramic protection is thermally stable up to 1000 °C / 1832 °F
- ▶ Protects nozzles, tips, and clamping devices in MIG/MAG welding
- ▶ To be sprayed thinly on the current contact tube, the nozzles or the clamping devices
- ▶ Optimally suited also for laser- and plasma cutting
- ▶ Dries within seconds
- ▶ One application lasts up to 8 hours
- ▶ No interim cleaning required
- ▶ Easy to apply with the Task Pro application system



Task Pro application system – available separately or as part of the kit

D40017 400 mL aerosol can

Trading unit: 6 x 400 mL (1 box)

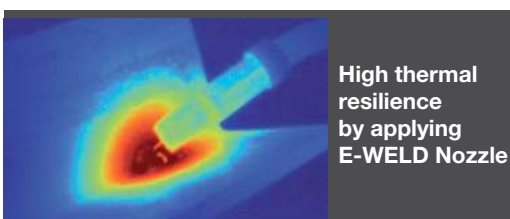
H00036 Task Pro application system

D00017-30 E-WELD Nozzle Starter Kit

Consisting of: 5 x 400 mL aerosol can, 1 x Task Pro

Hazard warnings: Eye Irrit. 2, Aerosol 1,

Aerosol 1, STOT SE 3



WELDING SOLUTIONS

WELDING

The Bio-Circle anti-spatter spray products have been granted various approvals for trouble-free zinc coating and varnishing after welding. These include approvals issued by Herning Zinc Coating, Volkswagen AG, SLT Laser Technology and the Dresden Institute for Corrosion Protection, to name but a few.



E-WELD 4 at Feldbinder

Feldbinder Spritzfahrzeugwerke GmbH is a manufacturer of silo vehicles and attaches great importance to safety and product quality. E-WELD 4 doesn't generate pores on stainless steel, and there are no residues in electro-polishing. On aluminium E-WELD 4 is applied next to the weld seam. Weld spatter is easy to remove, and the product features a good material compatibility.



Münch GmbH uses E-WELD 4

The supplier to various divisions of the steel-working industry manufactures in state-of-the-art plants. Münch GmbH uses E-WELD 4 prior to lasering tubular steel. The separating lotion prevents slag and spatter from adhering to the steel tubes. In addition, the enterprise, which has capacities in sheet and tube lasering, edge bending, machining and welding, uses among other things products such as Cleaner 5000.



KINKELE and E-WELD 4

When it comes to welding, Josef Weber, Production Manager at KINKELE GmbH & Co. KG, banks on Bio-Circle products. KINKELE offers customized solutions in mechanical engineering, apparatus engineering and constructional steelwork and has evolved into one of the most important enterprises of its kind. In mechanical engineering the versatile and tradition-steeped enterprise takes on the manufacturing, assembly and running-in tests of special machines, complete apparatuses and plants.



- Fast installation
- Easy handling
- Low disposal costs – not much waste
- Eco-friendly – conventional compressed air as a propellant
- High efficiency thanks to micro-fine spray mist
- Comfortable working, also overhead
- Safety valve will open at 0.2 bar
- Adjustable spray power
- Non-flammable

AUTRASYS Weld

The efficient, fast and safe way of applying welding separating agents

The Bio-Circle application system makes applying welding separating agents to 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 plastic drum, and the fluid can then be applied to the surface with the aid of compressed air. Ideally suited for the application of Bio-Circle welding separating agents.

Technical details AUTRASYS Weld

Jerrycan inlet pressure (bar)	0.1 max.
Plastic drum inlet pressure (bar)	0.1 max.
Spray gun air pressure (bar)	7.0 max.
Safety valve opening pressure (bar)	0.2
Hose length (m)	7.5
Consumption (mL/min)	90 – 200
Jerrycan thread	DIN 51 / DIN 61
Plastic drum thread	BSC 56 x 4
Order number	G80002



Optimal welding separating agents to be used in the AUTRASYS Weld

E-WELD 2, E-WELD 3, E-WELD 4

Here's how it works: ► Screw AUTRASYS onto jerrycan or plastic drum ► Connect to compressed air ► Set compressed air at 0.1 bar ► Let air out of the spray gun until the separating agent appears ► Spray



Ideally suited for the use of 30-litre jerrycans and plastic drums

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

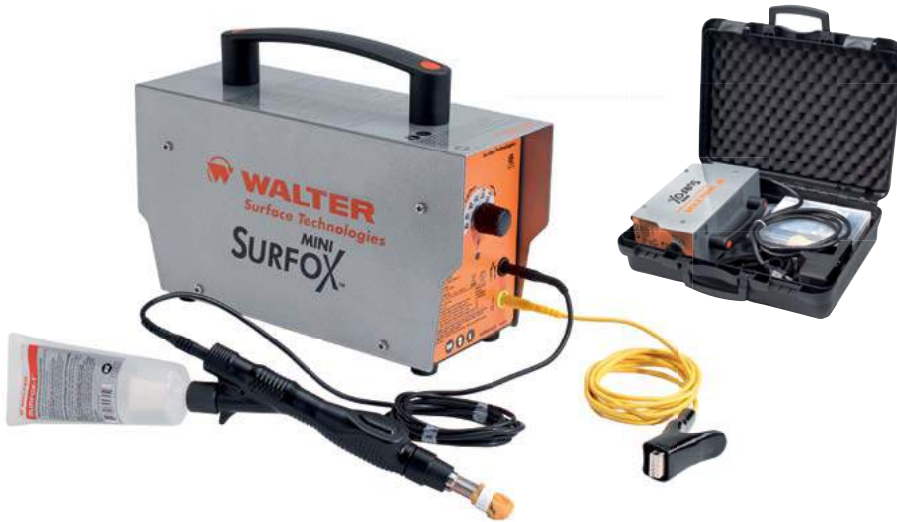
Standard equipment

- ◆ 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

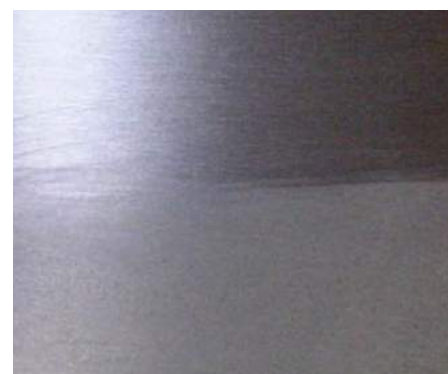
Neutralizes SURFOX-T electrolyte. Apply to the processed surface after the electro-chemical cleaning process.

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.



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

A00557-25 5 L jerrycan

A01057-25 10 L jerrycan

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



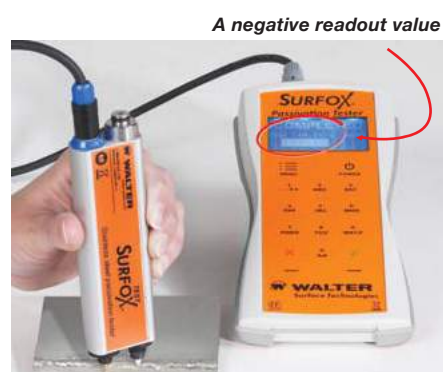
Microscopically small cells are often found on the surface of the work piece delivered; however, they are not locatable and recognizable before dispatch. Later, they will spread and become visible; this phenomenon is called pitting. Therefore, it is important for the manufacturer to make sure that their 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.



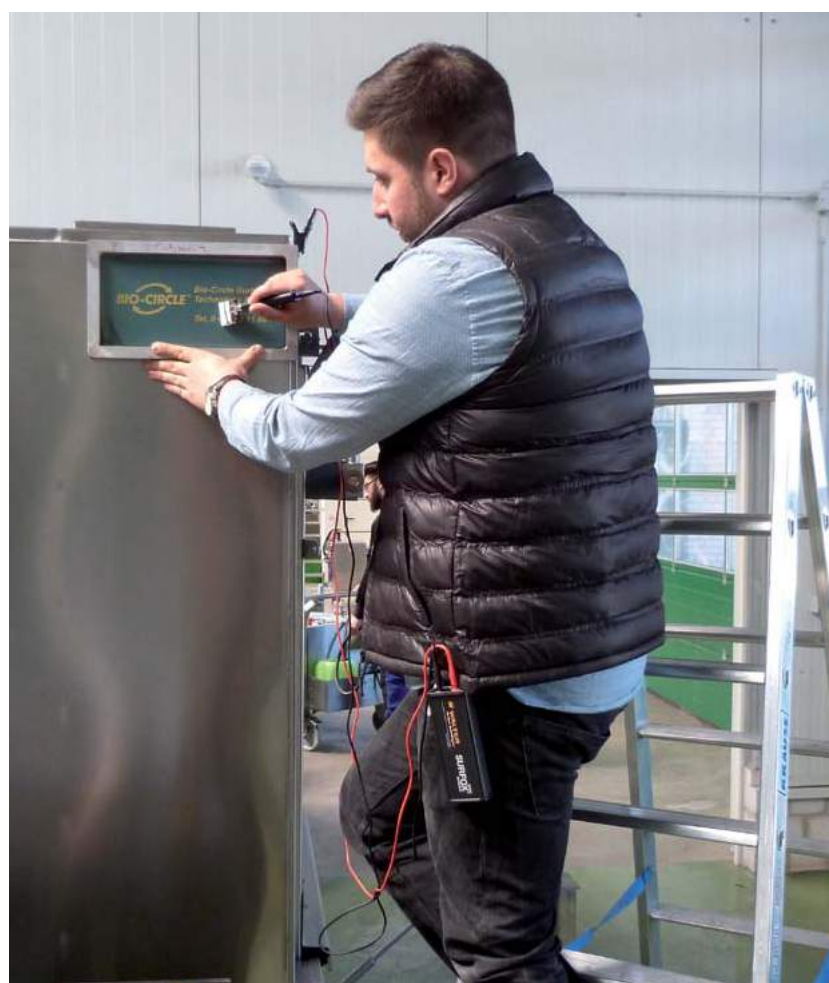
*Stencil printer and software
(laptop not included in the scope of delivery)*

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.



CLEANING
SOLUTIONS

SEASONAL

Seasonal products

Windscreens freezing over, footpaths getting slippery with snow and ice in winter and green coating in summer – the solution is Bio-Circle seasonal products.



Windscreen Cleaner –60 °C

Cleaner and antifreeze

- ▶ Frost-proof windscreen cleaner
- ▶ Highly concentrated
- ▶ No ice formation during windscreen wiping
- ▶ Icing on the windscreen is penetrated
- ▶ Excellent cleaning properties and good material compatibility
- ▶ Frost-free cleaning of windscreens and all plastic surfaces, inner motor parts and pipes of the vehicle
- ▶ The penetration effect delays refreezing and prevents nozzle freezing

F00101 1000 mL plastic bottle
Trading unit: 20 x 1000 mL (1 box)
F00501 5 L jerrycan
F03001 30 L jerrycan
F20001 200 L plastic drum
Hazard warnings: Eye Irrit. 2, Flam. Liq. 2, STOT RE 2

Mixing table concentrate : water	
2:1	up to –30 °C
1:1	up to –20 °C
1:2	up to –10 °C

Algae STOP

Algae- and green coating remover

- ▶ Effective and economical remover of algae and green coating
- ▶ With disinfecting long-term effect
- ▶ Effectively eliminates the danger of slipping caused by slippery green coating
- ▶ For use on roofing made from glass, plastics, bitumen, clay roof tiles, concrete roof tiles, sheet metal, and thatched roofs
- ▶ For walls made from clinker bricks, fine plaster, timber, plastics and sheet metal coating
- ▶ For pavements/footpaths, terraces, and pool edges

A90191 1000 mL plastic bottle
Trading unit: 12 x 1000 mL (1 box)
A91091 10 L jerrycan
A93091 30 L jerrycan
A20091 200 L plastic drum
Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

Please note:
On marble please carry out a compatibility test!

Please note:
Use biocides safely.
Always read the label and product information before use!



Tap

H00003 for 5 L and 10 L jerrycans

H00004 for 30 L jerrycans

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



Stainless steel hand-operated pump

H00006 for 200 L drums

(discharge 0.6 l hoist),

2" standard drum thread



Plastic hand-operated pump

H00007 for 200 L plastic drums

(discharge 0.3 l hoist)

2" standard plastic drum thread

incl. thread adapter and 1 m hose



Jerrycan cap spanner/bung wrench

H00016 Jerrycan cap spanner

for both DIN 51 and DIN 61,

plastic, colour: green



H00030 Bung wrench, metal,

for 200 L drums



Dosing pump incl. 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



PET 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



Clean-Mix

H00013 Dosing system for neutral to

highly alkaline Bio-Circle cleaners

To make Bio-Circle products easy for you to use we also provide the following accessories:



Titration Kit small

H00107 consists of:

- Burette
- 100 mL measuring cylinder
- Indicator solution (20 mL dropper bottle)
- Erlenmeyer flask
- 1 N hydrochloric acid
(to determine alkaline media)
or 1 N sodium hydroxide solution
(to determine acidic media)

Special cleaning fleece

H00017 Set consisting of:

- 5 fleeces, Ø 150 mm,
- 1 foam-rubber hand grinding disk,
grip system



H00018 Fleece, white, Ø 150 mm

for grip system, TU: 5 pcs.

H00019 Foam rubber hand grinding disc,
with strap, Ø 150 mm,
grip system, TU: 5 pcs.



Titration Kit big

H00207 consists of:

Identical with Titration Kit small,
plus pH-meter



Bio-Circle microfibre cloth

H515 Microfibre cloth

39 x 39 cm

Test ink

H00507 32 – 44 mN/m



Premium cleaning cloth

H00031 Cleaning cloth (TORK)

32 x 38 cm
160 pcs. on a roll,
perforated



Two-level trolley for the CLEAN BOX

H00043 Two-level trolley

2 levels, 4 castors (2 lockable)
with tubular push handle
Loading space below 610 x 410 mm



Tool box

H521 green plastic with aluminium handle



Factories Act (ArbSchG)

A law that governs the implementation of occupational health and safety measures in order to improve workplace safety and health protection of employees at work. According to the Factories Act the employer has to implement all necessary measures that guarantee and improve workplace safety and health protection of employees at work. For this, he/she has to assess the health hazards existing at the workplace. Risk assessment is the prerequisite for the implementation of target-oriented, effective and cost-efficient occupational health and safety measures. The employer has to instruct the employees regarding health hazards and protective measures.

Ordinance on Industrial Safety and Health (BetrSichV)

The Ordinance on Industrial Safety and Health governs the provision of work equipment by the employer, the use of said equipment at work by the employee, and the operational safety of systems requiring monitoring. It includes an extensive protective scheme that can be applied to all hazards posed by work equipment.

Youth Employment Protection Act (JArbSchG)

The Youth Employment Protection Act is a law designed to protect children and juveniles in the working environment. It aims at protecting children and juveniles from overwork. For instance, juveniles may not do any work that exposes them to the detrimental effects of hazardous substances as defined in the Chemicals Act.

Chemicals Act (ChemG)

The Chemicals Act is a law for the protection from hazardous substances on the territory of the Federal Republic of Germany. It is part of the law on chemicals. The details of the protective measures are established in ordinances, such as the Ordinance on Hazardous Substances, and in technical rules. In the Chemicals Act numerous EU directives are transposed into German law. This is particularly true for regulations in addition to the REACH Regulation.

Technical Rules for Hazardous Substances (TRGS)

These rules represent the status quo of safety-related, occupational health-, hygienic and ergonomic requirements for the putting into circulation and handling of hazardous substances. They are established by the Committee for Hazardous Substances (AGS) and serve to substantiate the regulations of the Ordinance on Hazardous Substances. Upon publication in the "Bundesarbeitsblatt", a journal published by the German Federal Ministry of Labour and Social Affairs, implementation of the TRGS is compulsory.

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals

REACH stands for Registration, Evaluation, Authorization and Restriction of Chemicals. In future approx. 30,000 substances available in the European market will be registered with the new European Chemicals Agency ECHA in Helsinki. In the middle of 2012 about 7,500 of them were already registered in more than 30,000 registration dossiers. Manufacturers and importers have to develop measures for safe use of their substances and communicate these to their customers. For pure chemicals so-called extended safety data sheets with exposure scenarios are used. The ECHA makes non-confidential information about substances and their hazards available in an Internet database. The core element of the REACH Regulation is characterized by the "no data, no market" principle.

On the basis of all available data the ECHA determines a possible hazardous effect on human health deriving a DNEL (derived no-effect level) value. DNEL values are to be understood similarly to workplace limit values (AGW).

Substances of very high concern (SVHC) fall under a separate official approval process and are published in the SVHC list of candidates approx. once every six months. In future consumers will be entitled to know whether products contain any substances of very high concern (SVHC).

Characteristics of very high concern in substances include i.a. being carcinogenic, mutagenic, reprotoxic (CMR) as well as being persistent, bioaccumulative and toxic (PBT), and being very persistent and very bioaccumulative (vPvB).

With regard to REACH and hence to the ECHA candidate list we can confirm that at present all raw materials used in Bio-Circle products do not contain any substance from the SVHC candidate list, and that they also do not fit the definition of PBT/vPvB substances in accordance with the REACH Regulation Annex XIII.

VOC Directive

The solvent regulation/VOC directive (31st BImSchV, 1999/13/EC) limits the emission of volatile organic compounds resulting from the use of organic solvents in certain activities and installations. This applies above all to enterprises that use organic solvents in surface cleaning, coating, varnishing, dry-cleaning, and printing, or in the manufacturing of coatings, adhesives, and pharmaceuticals. Emission limit values are laid down for all plants covered in the regulation, namely for the discharge by means of a smokestack, and also for fugitive emissions through windows, doors, and exhaust systems. The plant operator has to set up the plant in such a way that the emission limit values laid down will be observed. Instead of complying with these limit values a reduction scheme may be implemented. One can choose from three different reduction schemes. The application of the "Simplified Record", in which solvent contents are limited by using substitutes with maximum admissible solvent levels, is particularly interesting and simple in this context.

GHS (Globally Harmonized System) und CLP Regulation

(Classification, Labelling and Packaging of Substances and Mixtures):

In Europe the Globally Harmonized System for Classification and Labelling is implemented through the CLP Regulation (1272/2008/EC). It is implemented parallel to and closely linked with the REACH Regulation. The CLP Regulation sets out the provisions for the classification, labelling and packaging of substances and mixtures. Since 1 December 2010 substances, and since 1 June 2015 also mixtures (formerly preparations), have to be labelled in accordance with CLP. The most striking difference is the alteration of the identification symbols: instead of hazard symbols with black imprints on orange rectangles there are now nine different hazard pictograms. The former St. Andrew's Cross (Xi, Xn) has been omitted and replaced by e.g. a diamond with a red border and a black exclamation mark. R- and S- (=risk and safety) statements have been replaced by H- and P- (=hazard- and precautionary) statements. In addition, signal words (ATTENTION or WARNING) are printed on to emphasize the danger. Not only symbols and depictions change, there are also new hazards classes and altered classification criteria. The former EU law only knew 15 categories of danger, such as "corrosive" or "highly flammable". The new CLP Regulation however differentiates between 28 categories of danger. In addition to the hazard classes, hazard categories are introduced that provide a gradation of hazards within one hazard class. For instance, in the "flammable liquids" hazard class there are three categories that depend on the flash-point (cf. Chapter 2.6 Appendix I CLP Regulation). In Germany, plenty of laws, regulations and technical regulations refer to the classification and labelling of chemicals in accordance with EU directive 67/548/EEC or 199/45/EC. These also require revision and adaptation in accordance with the CLP Regulation. The most important regulations affected here are the Ordinance on Hazardous Substances (Gefahrstoffverordnung – GefStoffV) and the Ordinance on Biological Substances (Biostoffverordnung – BioStoffV).



CLP Regulation:

health hazards



physical hazards



environmental hazards

Ordinance on Hazardous Substances (GefStoffV)

The Ordinance on Hazardous Substances (Gefahrstoffverordnung – GefStoffV) sets out the provisions for protective measures for employees when handling hazardous substances. Hazardous substances are substances, mixtures, or products that exhibit certain physical or chemical properties, such as highly flammable, toxic, caustic, carcinogenic, or persistent. This means that under EC law these substances are placed in at least one category of danger.

The implementation of the CLP systems affects:

- the risk assessment,
- the operating instructions,
- the instructions of staff,
- the hazardous substance register, and
- in-house labelling, which all have to be examined.

Ordinance on Biological Substances (BioStoffV)

The ordinance on the protection of workers from risks related to exposure to biological agents at work (Biostoffverordnung – BioStoffV) governs work-related activities involving biological agents. It sets out the provisions for protective measures for employees when handling such substances. The term "biological agents" encompasses natural and genetically modified microorganisms such as bacteria, viruses, fungi, cell cultures, and parasites, which may cause infectious diseases in or have toxic effect on humans.

This does not only concern employees who purposefully work with these microorganisms (e. g. in the lab). Also employees who do not handle biological agents directly may be exposed to them at work (e. g. in the fields of wastewater and waste). The BioStoffV divides biological agents into four risk groups that lead to protection levels. Biological agents are classified according to their level of risk of infection. Protection levels range from access restrictions to physical cut-off.

Risk group 1 – Biological agents which are unlikely to cause human disease.

Risk group 2 – Biological agents that can cause human disease and may be a hazard for workers; they are unlikely to spread to the community.

Risk group 3 – Biological agents which may cause severe human disease and may be a serious hazard to workers; they may present a risk of spreading to the community but there is usually effective prophylaxis or treatment available.

Risk group 4 – Biological agents which cause severe human disease and are a serious hazard to workers; they may present a high risk of spreading to the community; there is usually no effective prophylaxis or treatment available.

CLEANING SOLUTIONS



The company — For more than 30 years Bio-Circle Surface Technology GmbH with its brands bio-chem and BIO-CIRCLE has been standing for the development, production and sales of innovative chemical and biotechnological products in the field of surface technology.

Founded as a kind of garage start-up by graduate engineers Ulrich and Manfred Berens, over the years the company has developed into a Germany-based internationally operating enterprise. Branch offices and production sites have been established in Europe and the world; the distribution network in Germany has been expanded continuously. The company's constant presence at domestic and international trade fairs and exhibitions also helps promote innovative reactions to ideas and markets.

The first product segment comprised CFC-free maintenance products that were tested and applied in the metalworking industry of the area. Phosphate-free water-based cleaners have expanded this segment. Once the bio-chem brand name had been implemented for all products of our company, the first products for the newly added product segments of Protecting, Lubricating, Welding and Ice-Free followed. The Cleaning Systems range completed the product range.





We are working on future-oriented projects and tasks in the fields of “environmental protection”, “biotechnology” and “surface chemistry” with an in-house R&D department and in cooperation with the University of Bielefeld. The points of departure for these scientific works and developments are the customers’ concerns and the issues of tomorrow’s market. So, over the past few years we have been focussing on the development of alternative cleaning agents, with VOC (volatile organic compounds = solvents) reduction being our medium- and long-term objective.

“Reducing solvents over the next few years will be the greatest challenge for us and for our customers”,
says Andreas Hüttner, Managing Director Austria.

History:

- 1985** Foundation of CB Chemie und Biotechnologie GmbH in Verl by graduate engineers Ulrich and Manfred Berens under the name of Ingenieurbüro für Chemie und Biotechnologie
- 1987** The first employees are hired for production and office.
- 1988** BIO-CHEM becomes the brand name for the manufactured products.
- 1989** The first employees are hired for sales and marketing.
- 1991** Change of the company’s name into CB Chemie und Biotechnologie GmbH
- 1993** Erection of the company building in Berensweg in Gütersloh
- 1997** Establishment of branch offices in Gmunden, Austria, and Rotkreuz, Switzerland
- 2002** Commencement of business at the production sites in Montreal, Canada, and São Paulo, Brazil. These production sites supply the North- and South American market
- 2002** Expansion of the production area and the office building
- 2004** Commencement of business at the production site in Istanbul, Turkey. This production site supplies the market in Turkey and Iran.
- 2004** bio-chem Surface Technology is registered as a word/picture mark with the German Patent- and Brand Office
- 2005** Foundation of the branch office in Katowice, Poland
- 2006** Commencement of business at the production site in Coimbatore, India. This production site supplies the market in India and the United Arab Emirates.
- 2008** Foundation of the branch offices in Targu Secuiesc, Romania, and Brno, Czech Republic
- 2009** Takeover of the SEPRO Umwelttechnik Handelsgesellschaft m.b.H. & Co. KG by CB Chemie und Biotechnologie Ges.m.b.H. in Austria, and foundation of the bio-chem Surface Technology GmbH in Linz
- 2010** The German CB Chemie und Biotechnologie GmbH is renamed Bio-Circle Surface Technology GmbH. The branch offices in Switzerland and Austria also change names to Bio-Circle Surface Technology AG (Switzerland), and Bio-Circle Surface Technology GmbH (Austria).
- 2011** 25th anniversary of the company
- 2012** Foundation of the branch offices in Madrid/Spain und Dubai/United Arab Emirates. Commencement of business at the production site in Elektrėnai/Lithuania. This production site supplies the market in the Baltic States and CIS countries.
- 2013** Expansion of the company premises
- 2014** Foundation of new branch offices in Italy, Denmark and Sweden
- 2015** Expansion of the company headquarters in Gütersloh; erection of new company buildings in Austria, Switzerland and China

CLEANING SOLUTIONS



Cleaning in the foodstuffs industry

In Germany, cleaning in the foodstuffs industry is subject to the German Food, Consumer Goods and Feed Code (LFGB). According to sec. 2 LFGB, cleaning agents are consumer goods. It is prohibited to put consumer goods in circulation that contain substances that may pass over to foodstuffs or their surfaces. The 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.

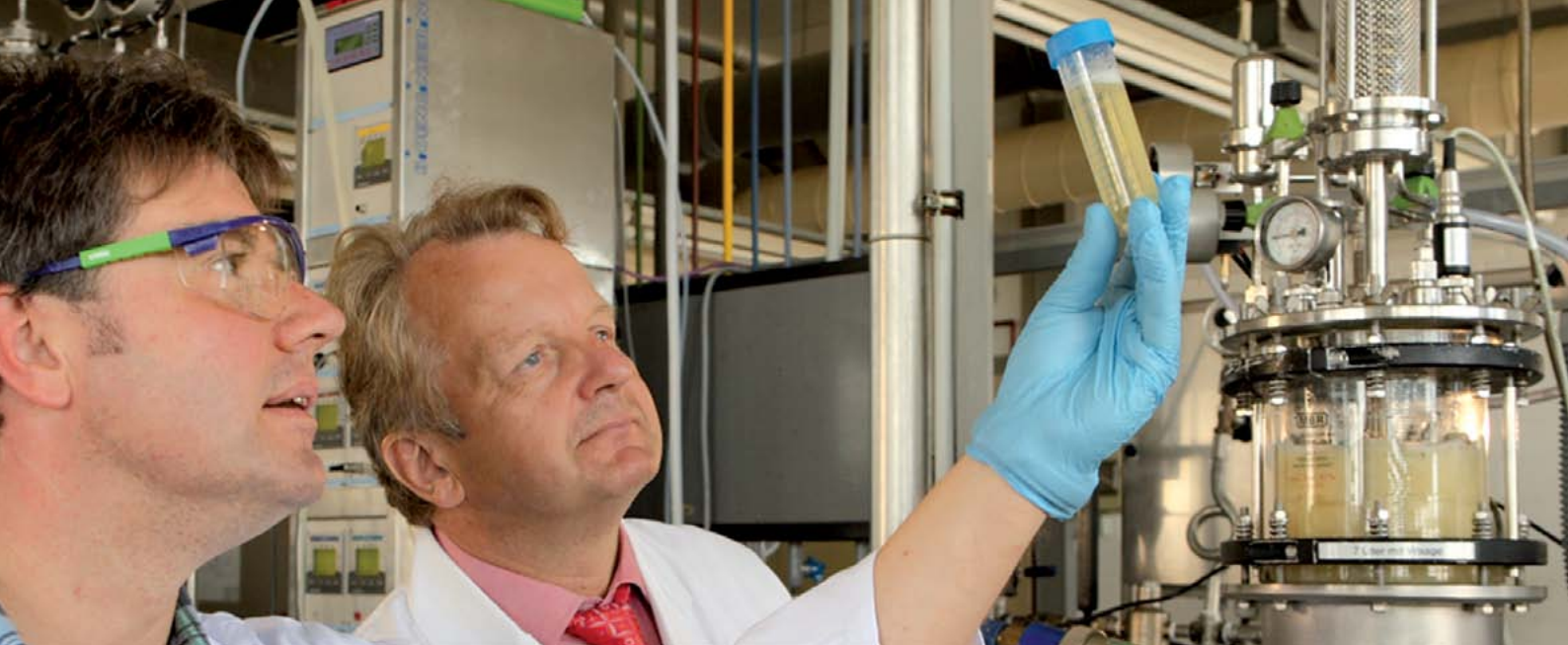
NSF registration

In addition to meeting the requirements of the LFGB [German Food, Consumer Goods and Feed Code], some Bio-Circle products have now also been granted international approval by the NSF (National Sanitation Foundation). The NSF registration gives users and inspection officials peace of mind that the products comply with the food safety regulations. The products registered with the NSF in this catalogue are marked with the NSF seal.

What does NSF mean?

NSF stands for "National Sanitation Foundation". It was founded in the US in 1944. NSF International is an independent non-profit organization for product tests and certifications that lays down standards for a wide range of household- and industrial products.

Category	
A1 „General cleaners“	General cleaners for areas with food contact
A3 „Acidic cleaners“	Acid cleaners for areas with food contact
A7 „Metal polishes – nonfood contact“	Metal polishes for areas with no food contact
C1 „Non-processing area“	General products for areas with no food contact (maintenance)
H1 „Lubricants – General incidental contact“	General products for areas with incidental food contact
K3 Adhesives or glue remover	Adhesives/glue removers



Environmental protection and quality



Fully aware that we are responsible for our environment, we already implemented a fully integrated environmental management system in 1996, which was certified by LRQA Germany in accordance with the guidelines of the globally applicable norm DIN ISO 14001. As an ecologically oriented enterprise we not only attach the greatest value to optimum product performance but also to maximum environmental compatibility. The certification attests to the fact that we deal with resources responsibly: with raw materials used in production, with energy and water, and also with waste.

“In our opinion, voluntary participation in this environmental management system is the right way to continuous improvement in environmental protection.”

Birgit Große, Managing Director Germany



CLEANING SOLUTIONS

Bio-Circle – The brand for innovative products in the surface technology sector

Thinking holistically, acting sustainably

Sustainability in our Bio-Circle products and technologies is our way of fulfilling the needs of the people of today, and of using resources in such a way that future generations will also be able to profit from them.

“For us, sustainability means assuming responsibility, for our entrepreneurial and social actions as well as for all environmental concerns.” Ulrich Berens, Chairman of the Supervisory Board

MAKING GREEN WORK.

- ▶ Efficient products with natural ingredients as far as technologically possible
- ▶ Increased use of renewable surfactants of plant origin with a high and fast biodegradability
- ▶ Good skin compatibility, plenty of products have been dermatologically tested
- ▶ As a rule we refrain from using preservatives
- ▶ Fragrances are specifically chosen, and their use is kept to a minimum or refrained from entirely
- ▶ Chelating agents such as EDTA or NTA are not used in any of our products
- ▶ Our products are free from hazardous chemicals – they contain no substances from the current EChA Candidate List of Substances (REACH)
- ▶ Less waste thanks to the application of Bio-Circle products in refillable spray bottles
- ▶ Protection of resources through the use of recirculation systems
- ▶ Promotion of energy efficiency through low-temperature products
- ▶ Application of white biotechnology in the BIO-CIRCLE as a powerful alternative to cold cleaners and other solvents






Added value through know-how

Use our know-how for your application!

We support you in the optimization of your cleaning- and welding jobs, from choosing the cleaning- and welding chemicals to cleaning technology. With our sales force and our service on site we facilitate optimal integration of the products in existing processes. We develop system solutions in cooperation with you, implementing an efficient cleaning- and welding process. In addition, our telephone hotline offers comprehensive customer service for any queries and application advice. Why not discover our service for yourself – we are looking forward to hearing from you!

Bio-Circle – your expert partner in efficient cleaning and welding.

Should you have any questions or require further information, please contact us by phone, fax or e-mail. We'll be happy to provide you with advice and assistance.

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A strong partner globally

with a worldwide presence

CLEANING • PROTECTING • LUBRICATING • WELDING

bio-circle.de • bio-circle.at • bio-circle.ch

Bio-Circle Surface Technology GmbH has a strong worldwide presence.

Our products are sold and applied in 55 countries.

We are a worldwide network with our own subsidiaries,
production sites and distribution partners.



Surface Technology GmbH

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