

# Catalogue 2020

# MAKING GREEN WORK.



[www.bio-circle.com](http://www.bio-circle.com)



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Bio-Circle Surface Technology GmbH



**WE FOR YOU**



**VISION**



# BIO-CIRCLE SURFACE TECHNOLOGY GMBH.

For more than 30 years, **environmentally compatible, sustainable and user-friendly products and cleaning systems** for the industry have been developed, manufactured and distributed at the Gütersloh headquarters of Bio-Circle Surface Technology GmbH, where the company employs about 160 staff.

Since Bio-Circle Surface Technology GmbH has developed into a globally operating German enterprise over the years, there are now subsidiaries, production facilities, and partners that cover 63 national markets worldwide. In addition, the constant presence at domestic and international trade fairs and exhibitions facilitates immediate reactions to ideas and markets.

The bio-chem and BIO-CIRCLE brands stand for innovative chemical and biotechnological products for cleaning, protecting, welding, and lubricating in the field of surface technology.



## A CLEAN WORLD WITH YOU IN THE CENTRE.

# VISION

Bio-Circle worldwide

[www.bio-circle.com](http://www.bio-circle.com)



# A CLEAN WORLD WITH YOU IN THE CENTRE.



## Think holistically. Act sustainably.

On a planet that is getting more and more crammed with ever-increasing problems, awareness and responsibility are more in demand than ever before. That's why our corporate vision of **A clean world with you in the centre** defines the way all our employees think and operate.

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

Fully aware of being responsible for the environment, Bio-Circle Surface Technology GmbH already implemented a fully integrated environmental management system in 1996. The DIN ISO 14.001 certification (issued by LRQA Germany) attests to the fact that the company deals with resources responsibly: with raw materials used in production, with energy and water, and also with waste.



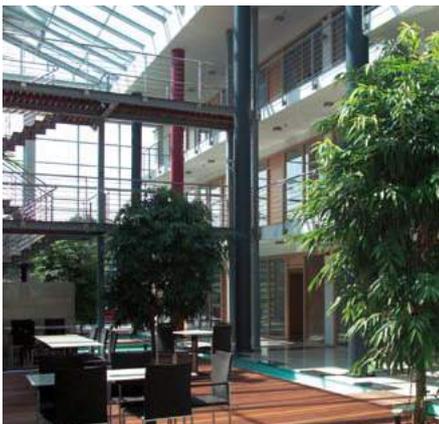
Bio-Circle Surface Technology GmbH, headquarters Gütersloh

# FUTURE IS NOW.

## A PIONEER IN ITS INDUSTRY:

Continuous improvement of existing products. Development of new, alternative cleaning agents:

- ▶ **essential:** product performance
- ▶ **elementary:** reduction of volatile organic compounds = solvents (VOC)
- ▶ **topical:** reduction of hazardous substances
- ▶ **central:** eco-compatibility
- ▶ **vital:** occupational health and safety
- ▶ **extensive:** certifications (NSF, Ö-Norm, Halal)





# MAKING GREEN WORK.

These three words stand for the corporate vision of saving and protecting mankind and the environment by means of products that are manufactured in a responsible manner.

## NATURAL – NATURE

- ▶ Efficient products with natural active ingredients: more than 80 % of all Bio-Circle cleaners are non-labelled, low-labelled, VOC-free or VOC-reduced (in accordance with the CLP Regulation)
- ▶ Use of surfactants of plant origin, with high and fast bio-degradability
- ▶ Use of 'White Biotechnology' (microorganisms) in the BIO-CIRCLE cleaning systems: the effective alternative to cold cleaners and solvents
- ▶ Carefully selected raw materials, plus reduced VOC content
- ▶ Bio-degradable and water-based products

## NATURAL – PROTECTION

- ▶ Good skin compatibility (many products have been tested dermatologically), dispensing for the most part with preservatives, minimal or no use of perfumes
- ▶ Protection of resources by using recirculation systems
- ▶ Less waste by using Bio-Circle products in refillable spray bottles with triggers
- ▶ Boosting energy efficiency by means of low-temperature products

## NATURAL – WITHOUT

- ▶ Without complexing agents such as EDTA or NTA
- ▶ Without substances from the current EChA Candidate List (REACH)

# WAY AHEAD – OUR NEW PET BOTTLE.

### Our current 500 ml PET bottle:

- ▶ Resource-efficient: 100 % recyclable
- ▶ Sustainable: refillable spray bottle, economical, powerful spray head
- ▶ Top quality: durable, safe to use

### Our NEW 500 ml PET bottle:

- ▶ Even more resource-efficient: made from 100 % recycled material (i.e. 100 % old plastic), manufactured in Europe, 100 % recyclable
- ▶ Even more sustainable: fewer plastic vortices, smaller piles of rubbish
- ▶ Even better quality: hard-wearing and durable, safe to use, refillable spray bottle, economical, powerful spray head





# BRIGHT PROSPECTS FOR YOU

You are at the centre of what we do, and you are getting a whole load of benefits – for your company and your staff, or for yourself as an employee/user.

- ▶ What you get: innovative top-quality products with extremely short delivery times
- ▶ What you have: a partner with knowhow in terms of HAZMAT reduction, cost minimization, energy efficiency, and sustainability
- ▶ **For you as an entrepreneur a domino effect:** occupational health and safety and environmental protection – improved working atmosphere – employee motivation – a cost-optimized and high-quality working experience in your company
- ▶ **For you as an employee/user: your greatest good, your health, is protected; you have more fun and motivation at work**

## KEEP SMILING.

We are committed to ensuring that you are in control of your contaminations and that your work processes are running smoothly, with clean machines, tools, tubes, hoses, etc.:

- ▶ **With our R&D department;**
- ▶ **With our qualified personnel in the back office and in the field;**
- ▶ **With our service technicians who cover the entire German territory and come to your company.**  
They will maintain your device depending on your Service Pack and assist you on site if you wish.

Oils, greases, rust, limescale, moss... the list of contaminations is long.

Stainless steel, steel, plastics, aluminium, non-ferrous metals... the surfaces have special requirements too.

The **applications** are just as varied: in parts cleaning, maintenance, pipes, heat exchangers, plastic injection moulds, varnish application tools, CNC machines, et al.

And so are the **industries**: metal processing, automotive, plastics processing, transportation, traffic, agricultural engineering, forestry, food technology, the trades, etc.



# TOGETHER

In order to be and remain future-oriented, the company looks far beyond the horizon, which has brought about some co-operations:

## UNIVERSITIES

In co-operation with several universities we are working on future-oriented projects and tasks in the fields of “Environmental Protection”, “Biotechnology”, and “Surface Chemistry”.

## IT'S OWL

The *Intelligent Technical Systems OstWestfalenLippe* (It's OWL) technology network is an association of more than 180 enterprises, universities, and other partners.

## PRO WIRTSCHAFT GT

The business development agency for the district of Gütersloh supports the shaping and fostering of structural change by means of indirect business development activities.

## STEM PROJECTS

MINT subjects are subjects and disciplines or professions in the fields of science, technology, engineering, and mathematics. There are various institutions and initiatives for the promotion of these specialist fields.

## MOTORSPORTS

Bio-Circle Surface Technology GmbH supports, i. a., the traditional racing team of Konrad Motorsport from Verl, the Grasser Racing Team from Austria, Mücke Motorsport from Berlin, and Student Formula E-Teams.





Bio-Circle Surface Technology GmbH, production in Gütersloh

# THE BIO-CIRCLE WORKING ENVIRONMENT

## SPECIAL AND DIFFERENT.

**For two generations, the company has been the professional home for idea generators, designers, researchers, and career changers. For people who are enthusiastic, take the initiative, and assume responsibility.**

As we are constantly striving for product improvement, Bio-Circle Surface Technology GmbH is constantly changing, which couldn't be more thrilling and visionary:

In key account management, in sales consulting in the field or as a service technician;  
as a specialist on the technical team, in logistics or in chemistry;  
as an employee in the commercial area;  
as a trainee or apprentice in production, in the lab or in the commercial area;  
or as a student in an integrated degree programme which entails the possibility of a three-month stay abroad.

The choice is yours; the range of tasks in our company is just as wide as the range of our products!



# HAND IN HAND – BECAUSE IT WORKS.

All products – from the idea to the finished product – are developed by our **Product Development** and tested by our **Application Technology**. At all times, our focus is on the benefit for our customer, and on our vision: **A clean world with you in the centre**. To this end, we work in close collaboration with users in order to specifically address the requirements of the industry. It is only when we receive the ‘thumbs up’ from our **Product Safety** that our latest brainchild will go into production.

Once the product designed for cleaning, protecting or lubricating has been manufactured in our production department and put into containers in our large- or small-unit bottling plant, it is stored in the logistics department in our high-bay warehouse. Our specialists in Production and Logistics keep a constant eye on stocks to make sure that all orders received are processed and dispatched as soon as possible.

Our devices – the parts washers, the closed washing cabins and the cleaning devices for pipes and heat exchangers – are designed and continuously optimized by our technical team. Our goal is the perfect fine-tuning of device and cleaning agent, and the resulting workload reduction for the user, which is paramount for us.

And then there are also:

the **sales representatives**, the **key account managers**, the **export department**, and **telephone sales**. Order Processing, Customer Care, and Marketing. Administration, Purchasing, and Facility Management.

Every employee can pull some strings. In **Management** all strings come together – that is how we can all pull in the same direction. For the goal of Bio-Circle Surface Technology GmbH is a happy user who has fun at work because he can work with health-friendly products.

**A clean world with you in the centre**. In all sectors of the industry.

Bio-Circle worldwide. [www.bio-circle.com](http://www.bio-circle.com)

Should you have any questions or require additional information, you're welcome to contact us via phone, fax or email.

We are looking forward to providing you with assistance and advice.



## ANY QUESTIONS?

Phone DE +49(0)5241 9443-0

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[www.bio-circle.com](http://www.bio-circle.com)

# AS

## AT WORK

### Topical areas

1. Manual parts cleaning
2. Precleaning and derusting
3. Automatic parts cleaning
4. Replacements for cold and brake cleaners
5. Cleaning before bonding
6. Surface cleaners
  - Degreasing of oil-contaminated components
7. Residue-free cleaning and degreasing before varnishing
8. Removal of dried-on paints and varnishes
9. Cleaning of recirculation systems and pipes
10. Welding and cutting
11. Other cleaning agents

# EFFECTIVE

# HIGH-PERFORMANCE IN EVERY INDUSTRY

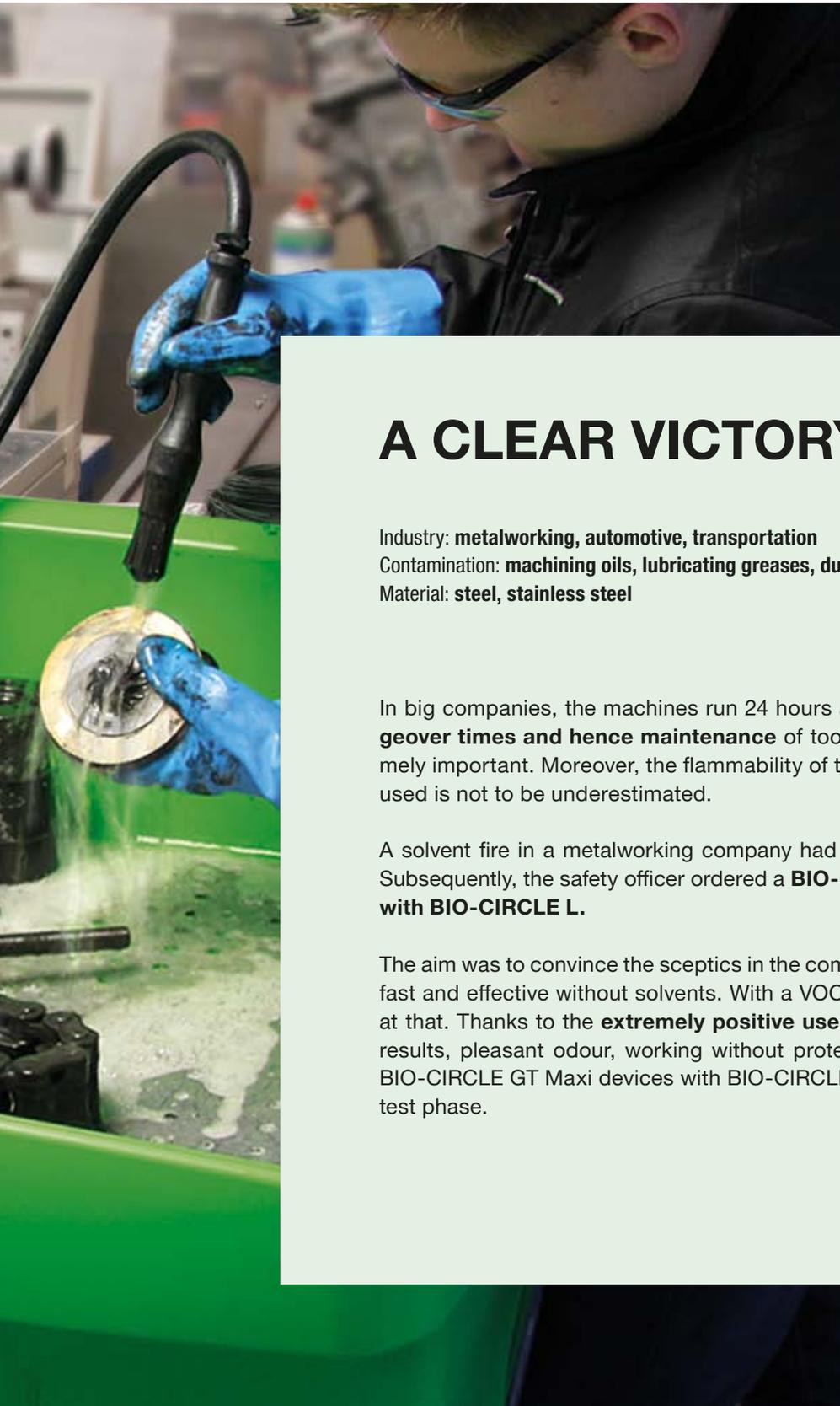
The Bio-Circle cleaning agents and systems are specialists for cleaning in a wide range of industries. For the reliable system solutions, safety, environmental- and employee protection are a top priority. Process continuity is maintained.

The areas of application couldn't be more different, as the devices are suitable for use in all sectors of the industry, e.g. the entire field of service and maintenance, the plastics industry, the trades, et al. **To give you an idea of our extensive product range, here are some top sellers in different sectors:**

			
<p><b>Automotive</b></p> <ul style="list-style-type: none"> <li>▶ BIO-CIRCLE HP</li> <li>▶ CB 100</li> <li>▶ CLEAN BOX</li> <li>▶ UNO S V</li> <li>▶ UNO X ...</li> </ul>	<p><b>Foodstuffs</b></p> <ul style="list-style-type: none"> <li>▶ BIO-CIRCLE GT Compact</li> <li>▶ CB 100</li> <li>▶ CLEAN BOX</li> <li>▶ UNO S F</li> <li>▶ Food-Tech-Oil ...</li> </ul>	<p><b>Metalworking/CNC</b></p> <ul style="list-style-type: none"> <li>▶ BIO-CIRCLE GT Compact</li> <li>▶ BIO-CIRCLE L</li> <li>▶ BIO-CIRCLE L Aluminium</li> <li>▶ FT 100</li> <li>▶ UNO S F</li> <li>▶ BIO-RUST F ...</li> </ul>	<p><b>Plastics processing</b></p> <ul style="list-style-type: none"> <li>▶ RWR 80 L KST Dual Automatic</li> <li>▶ Power Cleaner KST 2.0</li> <li>▶ Power Cleaner 150</li> <li>▶ UNO S V ...</li> </ul>
			
<p><b>Agriculture</b></p> <ul style="list-style-type: none"> <li>▶ BIO-CIRCLE GT Maxi</li> <li>▶ BIO-CIRCLE L Ultra</li> <li>▶ OMNI</li> <li>▶ CB 100</li> <li>▶ CLEAN BOX...</li> </ul>	<p><b>Energy</b></p> <ul style="list-style-type: none"> <li>▶ BIO-CIRCLE GT Compact</li> <li>▶ BIO-CIRCLE L</li> <li>▶ CB 100</li> <li>▶ CLEAN BOX Flex</li> <li>▶ GS 200 ...</li> </ul>	<p><b>Transportation</b></p> <ul style="list-style-type: none"> <li>▶ BIO-CIRCLE GT Maxi</li> <li>▶ BIO-CIRCLE L</li> <li>▶ Floor Cleaner STRONG</li> <li>▶ CB 100</li> <li>▶ CLEAN BOX Flex ...</li> </ul>	<p><b>Trades</b></p> <ul style="list-style-type: none"> <li>▶ FT 100</li> <li>▶ Limescale Barracuda</li> <li>▶ Hand Cleaning Cream</li> <li>▶ Power Cleaner 200</li> <li>▶ UNO S V ...</li> </ul>

## EFFICIENT AND SAFE WORKING.

# ① MANUAL PARTS CLEANING



Cleaning in the BIO-CIRCLE Turbo

## A CLEAR VICTORY

Industry: **metalworking, automotive, transportation**  
Contamination: **machining oils, lubricating greases, dust, dirt**  
Material: **steel, stainless steel**

In big companies, the machines run 24 hours a day. That's why **short changeover times and hence maintenance** of tools and machine parts is extremely important. Moreover, the flammability of the solvents that are still widely used is not to be underestimated.

A solvent fire in a metalworking company had caused considerable damage. Subsequently, the safety officer ordered a **BIO-CIRCLE GT Maxi with BIO-CIRCLE L.**

The aim was to convince the sceptics in the company that cleaning can also be fast and effective without solvents. With a VOC-free and non-labelled cleaner at that. Thanks to the **extremely positive user feedback** (excellent cleaning results, pleasant odour, working without protection mask and coverall), two BIO-CIRCLE GT Maxi devices with BIO-CIRCLE Liquid were ordered after the test phase.

Cleaning in the BIO-CIRCLE GT Maxi

# BULL'S EYE

Industry: **rubber- and sealant processing**

Contamination: **adhesives, wax, rubber, oil, grease**

Material: **steel, stainless steel, zinc-coated surfaces,**  
**in certain cases also: aluminium, non-ferrous metals, plastics**



Use of GS 200

For durable roof- and building waterproofing of all kinds, elastomer products are used in the industry and in construction. These plastics have a fixed form but can be moulded elastically and fulfil their purpose brilliantly. What's not so brilliant for the users during processing is having to get **the extremely gummed-up plants and moulds** back into shape. You can use solvents, of course. But there is another way, as this example from elastomer processing shows:

The employees clean the gummed-up rollers on the running machine manually at approx. 50 °C, using **GS 200**. Shortly before finishing time, the machine parts and moulds go into the **CLEAN BOX with GS 200** for pre-cleaning. The next day, after the immersion bath, the **BIO-CIRCLE GT Maxi parts washer with BIO-CIRCLE L Ultra** takes care of the rest.

The outcome: an excellent cleaning result, without using solvents and without worrying about related risks – a significantly improved working experience for the user.

## WHAT, AND WHAT WITH?

Device	Cleaner	Page
<b>BIO-CIRCLE GT Compact or Maxi</b>	BIO-CIRCLE L, Ultra, Aluminium, Blue, Heavy Duty, Liquid EVO	<b>72</b>
<b>Vario SL Compact</b>	s. o.	<b>99</b>
<b>BIO-CIRCLE HP</b>	BIO-CIRCLE L Turbo, Ultra, STAR, ALUSTAR range	<b>80</b>
<b>HP Vigo</b>	BIO-CIRCLE L Star, Turbo, Liquid EVO	<b>81</b>
<b>PROLAQ Compact or Auto</b>	PROLAQ 100, 400 or 500	<b>94</b>
<b>CLEAN BOX</b>	GS 200	<b>92</b>
	<b>CB 100, LR, Alu, Alu LR, Blue</b>	<b>42</b>
	<b>GS 200</b>	<b>63</b>
	<b>FOR CLEAN, F, V</b>	<b>45</b>
	<b>UNO S F, S PF, S V, W, X</b>	<b>46</b>
	<b>OMNI</b>	<b>60</b>



Cleaning in the CLEAN BOX

## ② PRECLEANING AND DERUSTING

### A PIECE OF CAKE

Industry: **metalworking, automotive, transportation**

Contamination: **cf. table below**

Material: **steel, stainless steel, iron, partly: aluminium, non-ferrous metals, zinc-coated surfaces, varnished surfaces**

There is a simple trick for removing persistent and encrusted contaminations: **pre-cleaning**. Place the machine- and mould parts in the CLEAN BOX with the appropriate cleaner (CB 100 or GS 200), allow to soak for a couple of hours, and take them out. This is followed by the main cleaning in the parts washer or a washing cabin.

For derusting, place the parts in the **CLEAN BOX with BIO-RUST F** for some time; after that, the corrosion protection contained therein allows for short- to medium-term storage.

Derusting with BIO RUST F





Cleaning in the CLEAN BOX

### WHAT, AND WHAT FOR?

Type of contamination	Device	Cleaner	Page
Oils, greases	CLEAN BOX	CB 100	42
Oils, greases, rubber residues & wear particles, resins, corrosion protection waxes	CLEAN BOX	GS 200	63
Rust	CLEAN BOX	BIO-RUST F	63

All three cleaners are non-labelled!



Cleaning in the CLEAN BOX Flex



# ③ AUTOMATIC PARTS CLEANING

## PRIORITIZING

Industry: **construction**

Contamination: **machining oils, lubricating greases, dust, dirt, wear particles**

Material: **steel, stainless steel, plastics**

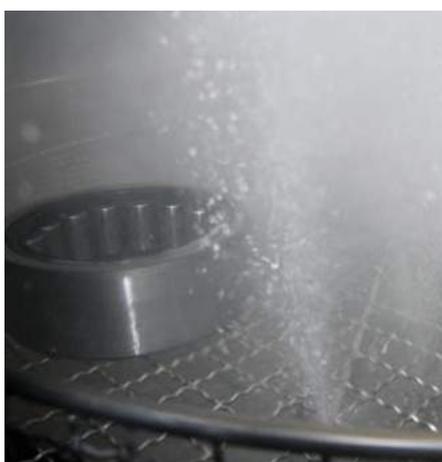
Sound familiar? The second run, you open the lid of the washing cabin and see right away that the parts to be cleaned are still greasy. You feel like losing it but you force yourself to stay calm. **For you have more important things to do than checking if the cleaner is doing its work.**

**STAR 200 from the STAR range.** The cleaner removes machining oils, wear particles, etc. and not only cleans steel and stainless steel but also plastics, which exactly fits the bill. STAR 200 has been especially developed for mechanical cleaning, features a top cleaning activity, and is VOC-free and low-labelled to boot.

Stop worrying about cleaning – you’re wanted elsewhere!



HTW with roller bearings





Cleaning in the HTW

### WHAT, AND WHAT WITH?

Device	Page	Cleaner	Page
<b>HTW</b>	<b>83</b>	<b>STAR 100, 200, 300</b>	<b>56</b>
		<b>CB 100</b>	<b>42</b>
		<b>Smoke Resin Remover, foamless</b>	<b>61</b>
<b>Ultrasonic cleaning devices</b>	<b>86</b>	<b>STAR US 1 – 5</b>	<b>58</b>
		<b>PROLAQ L US</b>	<b>97</b>
		<b>FOR CLEAN</b>	<b>45</b>
<b>BIO-CIRCLE Turbo</b>	<b>82</b>	<b>STAR 100, 200, 300</b>	<b>56</b>
		<b>ALUSTAR 100, 200, 300</b>	<b>57</b>
		<b>CB 100</b>	<b>42</b>
		<b>Smoke Resin Remover, foamless</b>	<b>61</b>
		<b>BIO-CIRCLE L Star, Turbo, Liquid EVO</b>	<b>79</b>

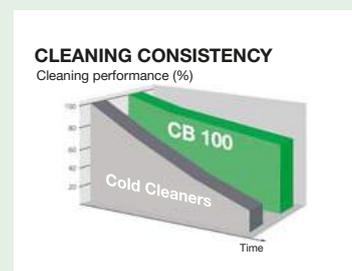
Ultrasonic cleaning with FOR CLEAN



# ④ REPLACEMENTS FOR COLD AND BRAKE CLEANERS

## A HOT AND COLD REVELATION

Industry: **metalworking, automotive, transportation, foodstuffs**  
Contamination: **oils and greases**  
Material: **stainless steel, steel**



And there it stood, the **200 L drum of CB 100**, of which Jack had great expectations. For he had done his homework and had learnt that **there were health-friendly alternatives to cold cleaners**.

Jack connected the drum to the parts washer in just a few simple steps and started cleaning the oily and greasy parts, as was his wont. He noticed the pleasant odour immediately. Some days later, after having cleaned the greasiest parts for several hours each day, Jack noted with satisfaction that the cleaner was still far from saturated, and the cleaning performance was still fantastic. “Why did you turn the extraction off? Where is your protective mask?” His boss’s voice pierced jack’s back.

Jack explained to his boss that this one drum held the VOC-free and non-labelled cleaner, together with occupational health and safety and a reduction in operating costs. The boss looked him in the eye, thoughtfully. “We’ll talk tomorrow, I’ll want detailed information then,” he said, and off he went towards the exit, at a rapid pace.

Cleaning a motor block with CB 100



200 L drum of CB 100 in use





# STICKY FINGERS

Industry: **metal processing, surface finishing**

Contamination: **adhesive residues of textile-, paper-, plastic-, and aluminium adhesive tapes**

Material: **steel, stainless steel, chrome, aluminium, non-ferrous metals**

Among other things, surface finishers coat shafts and auger conveyors – in this case with hard chrome. The company had always had huge problems with adhesive residues that remained after removing the adhesive tapes. The acetone/diesel mix used for this purpose was not a viable solution in the long run.

So, they started looking for a new cleaner. After a few tests it was clear which cleaner removed a variety of adhesive residues from different surfaces in manual applications:

**Remove AD(hesive) 200.**

Cleaning with CB 100



## WHAT, AND WHAT FOR?

Type of use	Cleaner	Page
<b>In a drum under the cold-cleaner parts washer</b>	<b>CB 100</b>	<b>42</b>
<b>Mechanical cleaning</b>	<b>STAR 100, 200, 300</b>	<b>56</b>
<b>Spray on/apply, allow to soak, wipe off</b>	<b>CB 100</b>	<b>42</b>
	<b>FT 400</b>	<b>51</b>
	<b>UNO S F, S PF, S V, W, X</b>	<b>46</b>
	<b>FOR CLEAN, F, V</b>	<b>45</b>
	<b>Remove AD(hesive) 200</b>	<b>63</b>

# ⑤ CLEANING BEFORE BONDING

## WATCH OUT, IT STICKS!

Industry: **automotive, energy, furniture, plastics processing, wind energy, equipment manufacturing, switch cabinet builders**  
Application: **cleaning and priming in one go**  
Material: **plastics (such as PVC and PE), metal**

### Is bonding the new welding?

The automotive industry is leading the way. Today, lots of automotive parts are no longer welded but bonded. No matter if it is sensors, trims, mounting parts or surface protection, bonding is all the rage.

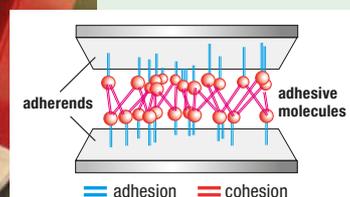
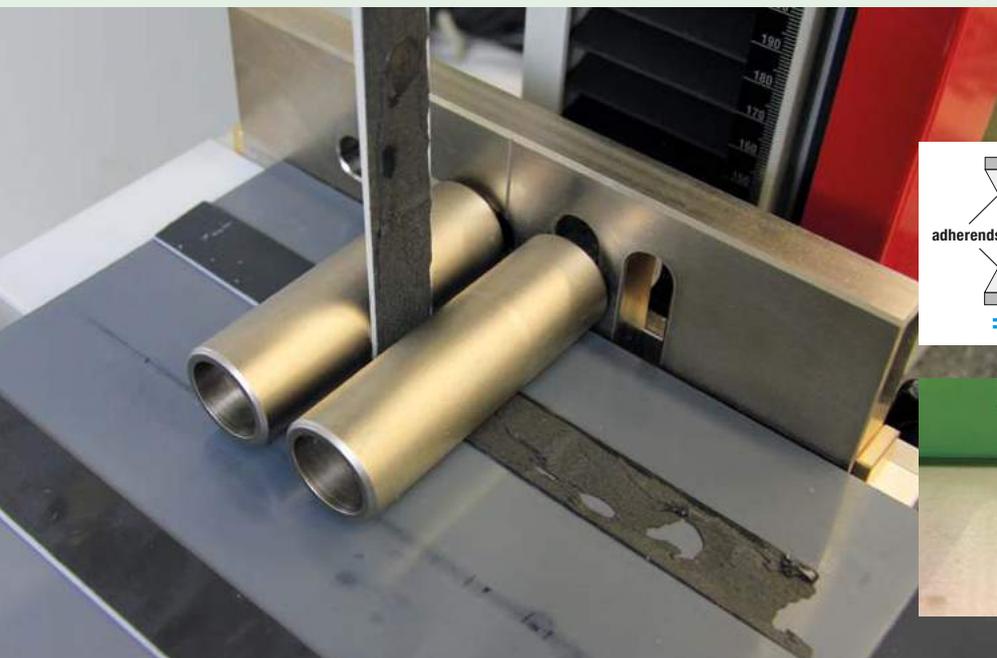
### Our products, the new super talents, clean and prime in one go!

The products **increase adhesive strength up to sevenfold** – also on difficult substrates such as PVC and PE.

Application is very easy: Spray on as a fine mist or apply with a cloth. Wipe off surface with a cloth to remove contaminations. Apply adhesive tapes and press on with a pressure roller. The cleaner characteristics make priming obsolete.

Costly and time-consuming employee protection is not necessary anymore, and hazardous solvents do not have to be stored anymore for this application.

Checking adhesive strength





#### WHAT, AND WHAT FOR?

Application	Cleaner	Page
Cleaning and priming	Clean AD(hesive) 100, 200, 300	42
Removing adhesives	Remove AD(hesive) 200	63



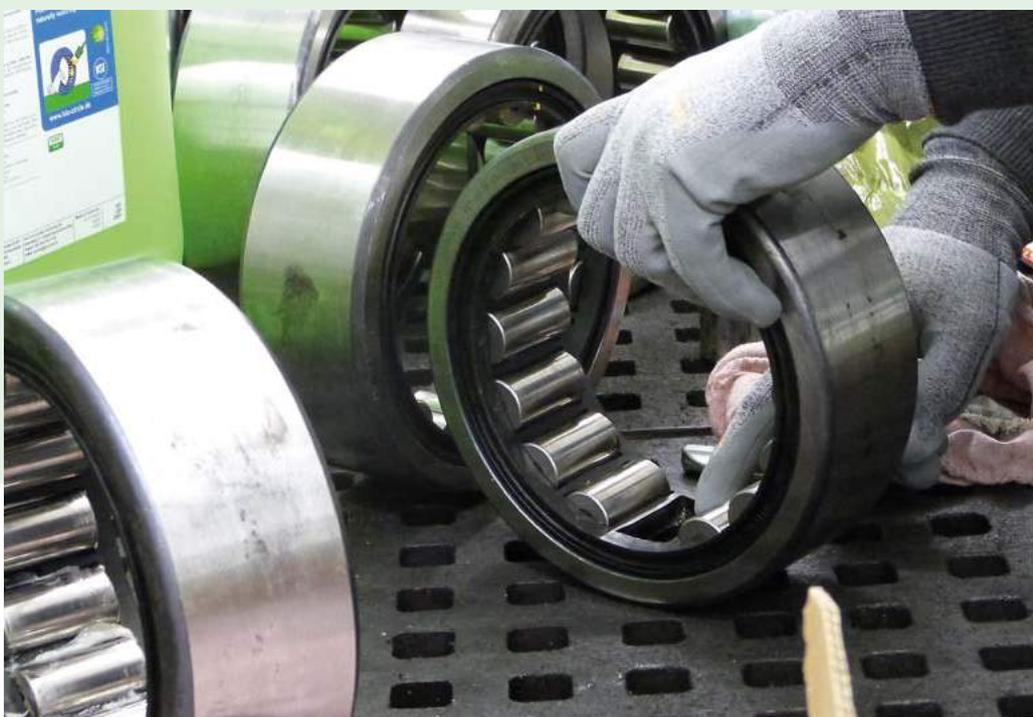
Cleaning before bonding



## ⑥ SURFACE CLEANERS

**SPRAY ON/APPLY, WIPE OFF**

**DEGREASING OF OIL-CONTAMINATED COMPONENTS**



Oven cleaning with Smoke Resin Remover



# CLEAN AS A WHISTLE

Industry: **vehicle preparation, facility cleaning, metalworking (after machining processes)**

Contamination: **light greases, dust, wear particles from manufacturing parts**

Material: **steel, stainless steel, aluminium, non-ferrous metals, plastics, varnished surfaces, zinc-coated surfaces**

Its versatility and material compatibility make **FOR CLEAN F** the 'jack of all trades' for daily use. **E-NOX Shine** cleans, grooms and brings a sparkle to your home, your machines, your mat and polished surfaces – wherever you want.

The motto that applies to both super talents is: Clean as a whistle! They are easy and harmless to use: Spray on, allow to soak, wipe off – ready, VOC-free and non-labelled, steady, go!

## RECOMMENDED CLEANERS

Cleaner	Page
<b>E-NOX Care, Clean, I, Shine</b>	<b>64</b>
<b>FT 100, 300</b>	<b>50</b>
<b>FT 200, 400</b>	<b>51</b>
<b>SC 100, 200, 400</b>	<b>55</b>
<b>UNO S F, S PF, S V, W</b>	<b>46</b>
<b>FOR CLEAN, F, V</b>	<b>45</b>
<b>Multi Clean</b>	<b>46</b>
<b>CB 100, LR, Alu, Alu LR, Blue</b>	<b>42</b>
<b>GS 200</b>	<b>63</b>
<b>OMNI</b>	<b>60</b>
<b>Bio Grease-Ex</b>	<b>62</b>
<b>Die-Casting Mould Cleaner</b>	<b>62</b>
<b>Smoke Resin Remover, foamless, DB</b>	<b>61</b>
<b>Stripper</b>	<b>62</b>
<b>Stripper Gel</b>	<b>62</b>
<b>Limescale Barracuda</b>	<b>66</b>

Applying Stripper



# ⑦ RESIDUE-FREE CLEANING AND DEGREASING BEFORE VARNISHING



## THE WOW EFFECT

Industry: **across all industries**

Contamination: **dust, fingerprints, oil and grease contaminations, adhesive residues**

Material: **steel, stainless steel, aluminium, non-ferrous metals, plastics, varnished surfaces, zinc-coated surfaces, glass**

**FT 100** or **FT 300** stand for 2 x 2 words:

**Residue-free + cleaning. VOC-reduced + non-labelled.** 'nuff said.

Ok, almost enough. The cleaners of the FT range are surfactant-free and fast-drying – ideal for surface pre-treatment before varnishing, for removing adhesive residues or machining oils. Cleaner residues can be removed with FT 100 and FT 300, too. Moreover, FT 100 can be used in the food industry because it is NSF-certified.



# WE CAN BE HEROES, JUST FOR ONE DAY



Industry: **machine building, industrial varnishing**

Contamination: **dust, dirt, machining oils**

Material: **steel, stainless steel, in certain cases also aluminium, non-ferrous metals, plastics, varnished surfaces, zinc-coated surfaces**

David reaches for the **FT 200**, of which he always has enough spray bottles in stock. He knows that he can rely on his non-labelled and VOC-reduced cleaner, because **it dries fast and cleans splendidly**. And that's exactly what he needs right now. The customer will be there in a minute, and all has to be ready by then.

**The machining oils are removed from the welded steel frame lickety-split, and it's time for the last step: varnishing.** Moments later he is reviewing his finished work, the still-wet varnish is sparkling. "No small feat, considering the short timeframe." David is standing in front of the steel frame, pleased as punch and with his arms folded, when his boss enters the hall with the customer.

Without so much as looking at David, the latter goes around the workpiece in silence. "Seems to fit. Good job, young man. Tomorrow morning at 7 my people will come and pick it up." The boss pats David on the back approvingly: "Call it a day, son. You deserve it."



## RECOMMENDED CLEANERS

Cleaner	Page
<b>FT 100 + FT 300</b>	<b>50</b>
<b>FT 200</b>	<b>51</b>
<b>UNO S F</b>	<b>46</b>
<b>FOR CLEAN, F, V</b>	<b>45</b>
<b>Limescale Barracuda</b>	<b>66</b>



Surface pre-treatment before varnishing



# ⑧ REMOVAL OF DRIED-ON PAINTS AND VARNISHES

**PROLAQ:  
PRO-  
LACQUERER!**





## ... AND YOUR DAY WILL BE QUITE DIFFERENT

Industry: **metalworking, industrial varnishing, automotive, automotive coating**

Contamination: **dried-on paints and varnishes**

Material: **painting tools and spray guns as well as steel, stainless steel, and aluminium**

**“Please inform your colleagues that we will be working with a new parts washer and a new paint remover from now on. PROLAQ Compact with PROLAQ L is the name of the system, VOC-reduced and low-labelled. You’ll get your instruction on Monday morning.”**

What happened before: reluctantly, Felix knocks on his boss’s door and enters the office after a terse ‘come in’. The boss is standing at the window, looking at the landscape. “You wanted to see me?” Felix stares at his employer who is still turning his back on him. After a while, he turns around slowly and looks Felix over. “How long have you been with us now?” – “For 18 years already, boss.” – “And? Do you still like it here?” – “Well...” – “I’m all ears, Felix.” – “You’re certainly about to tell me that I’ve been forgetful lately. And that’s true. But, boss, these solvent vapours are killing me. It’s the same with the other guys.” The boss gives him a thoughtful look. “This issue dates back a long way, but sadly it’s being condoned. We are going to change that though. I have already taken the necessary steps.”

### WHAT, AND WHAT WITH?

Device	Page	Cleaner	Page
<b>PROLAQ Compact + Auto</b>	<b>94</b>	<b>PROLAQ L 100, 400, 500</b>	<b>96</b>
<b>Ultrasonic</b>	<b>86</b>	<b>PROLAQ L US</b>	<b>97</b>

Parts cleaning with PROLAQ L US

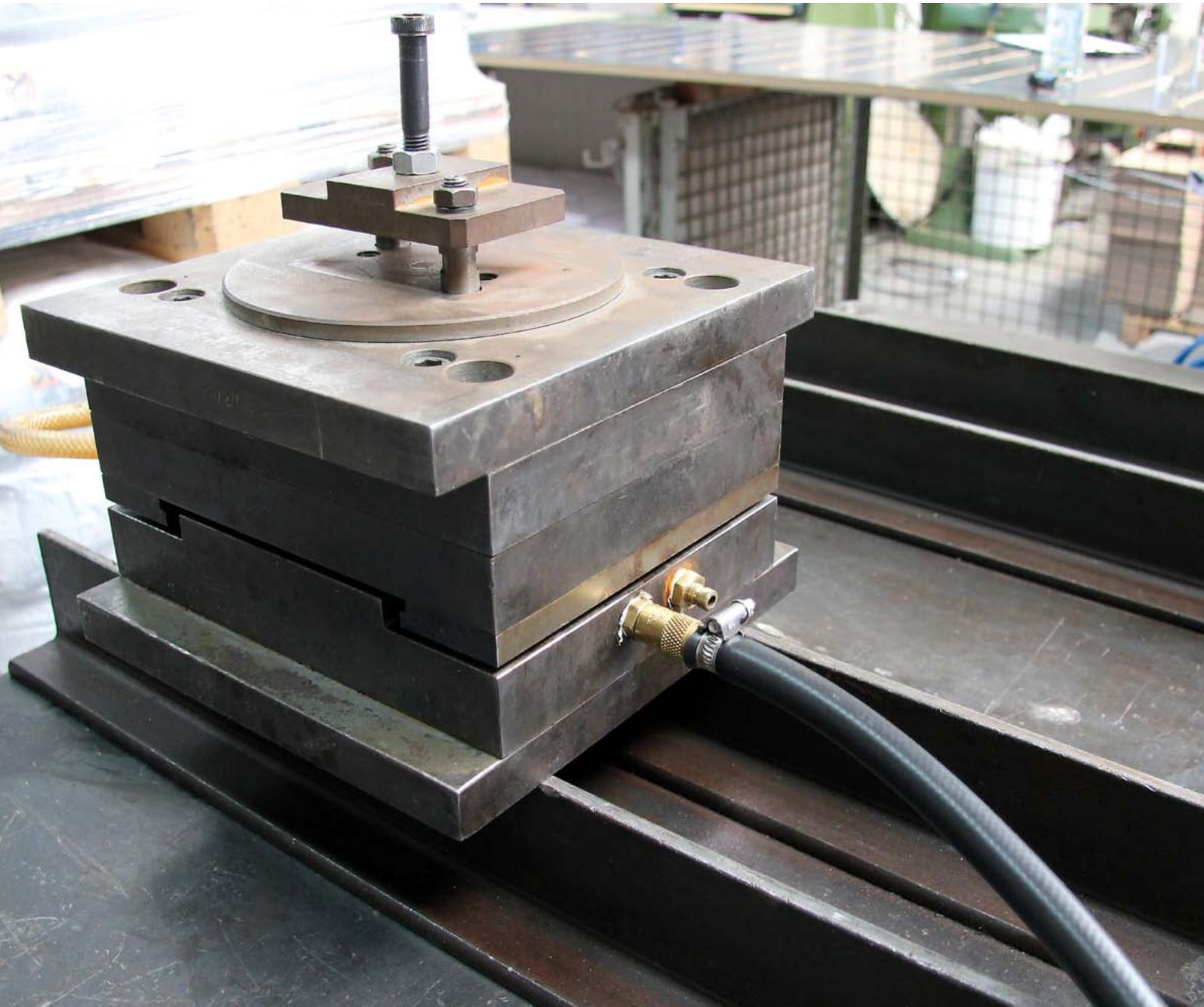


Cleaning of a spray gun in the PROLAQ Compact



# ⑨ CLEANING OF RECIRCULATION SYSTEMS AND PIPES

RWR KST rinsing a plastic injection moulding workpiece



# ENDLESS POWER

Industry: **Transportation, plastic injection moulding**

Contamination: **cf. table below**

Material: **steel, stainless steel, alu, plastics**

The **RWR pipe- and tank cleaning devices** (different sizes available, depending on the capacity) are made of stainless steel and have been designed for the cleaning and rinsing of contaminated pipes, wastewater tanks, freshwater pipes and -tanks, heat exchangers, and cooling units.

The **RWR KST** (also available in different versions) **cleans and rinses the cooling ducts of plastic injection moulding tools as well as their heat exchangers.**

The systems are connected directly to the pipes to be cleaned – and off you go! With minimum staffing levels, but with so much more power, dirt and limescale won't stand a chance!

## WHAT, AND WHAT FOR?

Type of use	Maschine	Page	Cleaner	Page
<b>Cleaning and rinsing of pipes: urine scale, limescale, corrosion, greases, oils, and oil carbon</b>	<b>RWR</b>	<b>88</b>	<b>Power Cleaner DB – 1:20, 1:40</b>	<b>53</b>
			<b>Smoke Resin Remover DB – 1:20, 1:40</b>	<b>61</b>
			<b>Power Cleaner 150 – undiluted</b>	<b>52</b>
			<b>Power Cleaner 400 – 1:20, 1:40</b>	<b>53</b>
<b>Contaminations in cooling ducts of plastic injection moulding tools: limescale, corrosion</b>	<b>RWR KST</b>		<b>Power Cleaner KST 2.0 – undiluted</b>	<b>53</b>

Mixing ratios may vary depending on the type of application and contamination. For indicative purposes only.

RWR at Deutsche Bahn



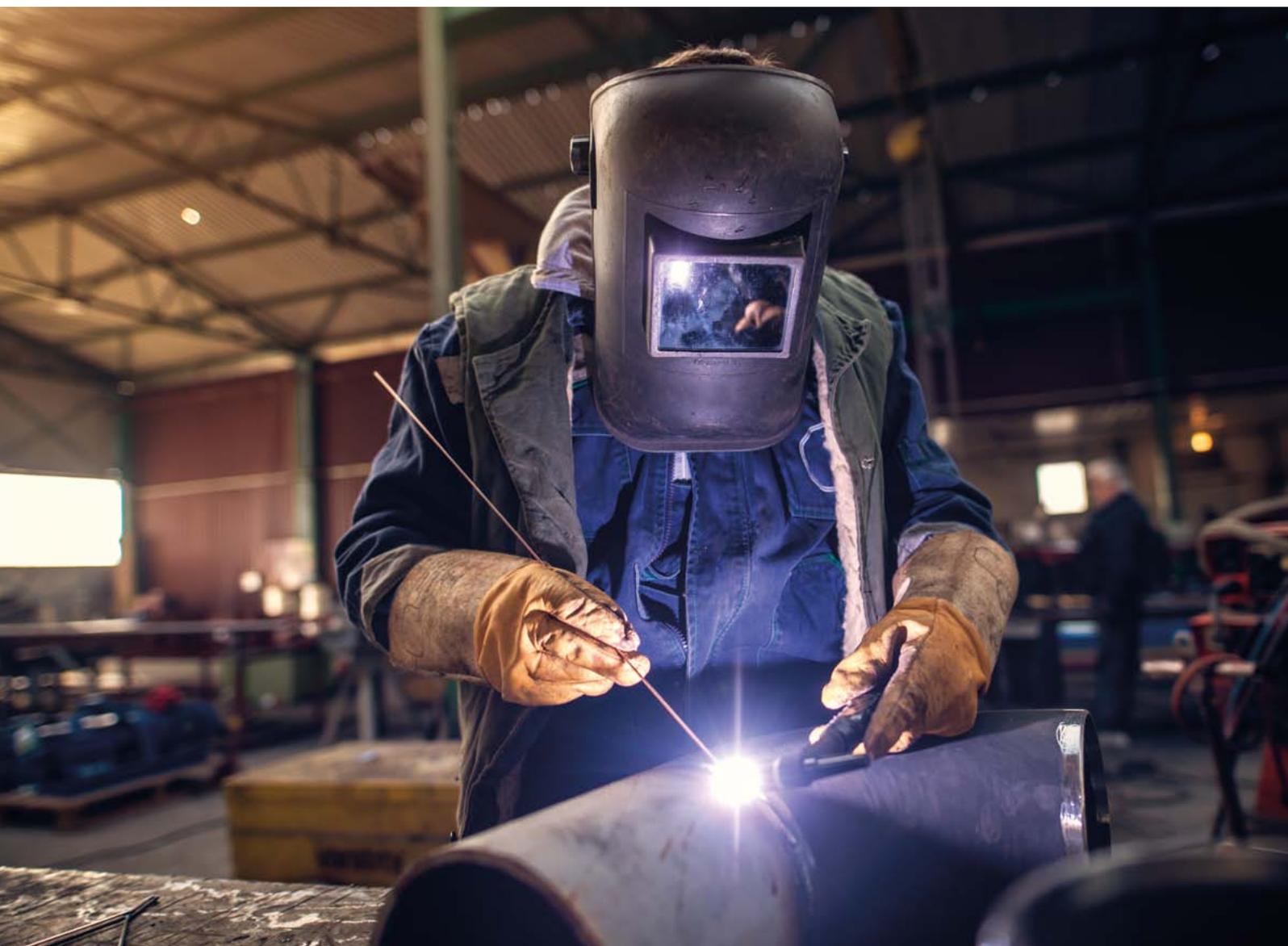
Pipe cross-section before



after



# ⑩ WELDING AND CUTTING



# PRECISION GUARANTEED

Industry: **metalworking, plasma- and laser cutters, machining processes, CNC technology**

Contamination: **slag**

Application of E-WELD Shield: **spray-on ceramic protection for the support grid of cutting machines**

E-WELD Shield **prevents the build-up of slag in plasma- and laser-cutting**, thus extending bar life times. The ceramic protection makes sure that the cut-outs rest flat on the bars. Uneven surfaces are prevented, guaranteeing the quality of the workpieces – with utmost precision.

**E-WELD Shield** is applied to the new or cleaned bars by means of a spray gun or a lamb's wool roller. After a drying period, work on the cutting machines can be resumed. Not only are bar life times extended significantly, but also machine setup times are reduced considerably.

E-WELD Shield



SURFOX



## WHAT, AND WHAT WITH?

Device	Cleaner	Page
<b>SURFOX MINI GENERATION 5</b>	SURFOX-N, T	<b>114</b>
<b>SURFOX 305</b>	SURFOX-N, T	<b>114</b>
	<b>E-WELD range</b>	<b>110</b>
	<b>High-Performance Cutting Oil</b>	<b>107</b>
	<b>Cutting Coolant</b>	<b>107</b>
	<b>OMNI</b>	<b>60</b>
	<b>OMNI 200</b>	<b>60</b>
<b>E-WELD Shield spray gun</b>	<b>E-WELD Shield</b>	<b>113</b>

## ⑪ OTHER CLEANING AGENTS

### HAIR-FREE

Industry: **all, e.g. foodstuffs and beverages, hotels, hospitals, sanitary rooms**

Contamination: **hairs, soap residues, greases, dirt**

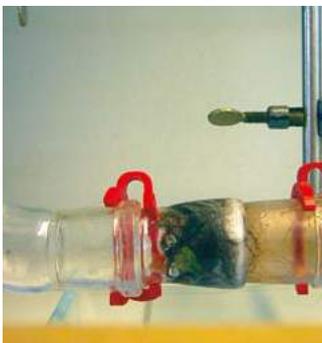
Material: **steel, stainless steel**

Better to have hair on your head than hairs in the waste trap or drain! Everybody's nightmare: water that is draining slowly or not at all. That's what happens in many hotels, hospitals, industrial kitchens, etc. It doesn't have to be like that: **Hair Remover Drain-Free** is not only extremely effective, killing each and every hair and other clogging, it is VOC-free and low-labelled to boot. Turn on the tap!





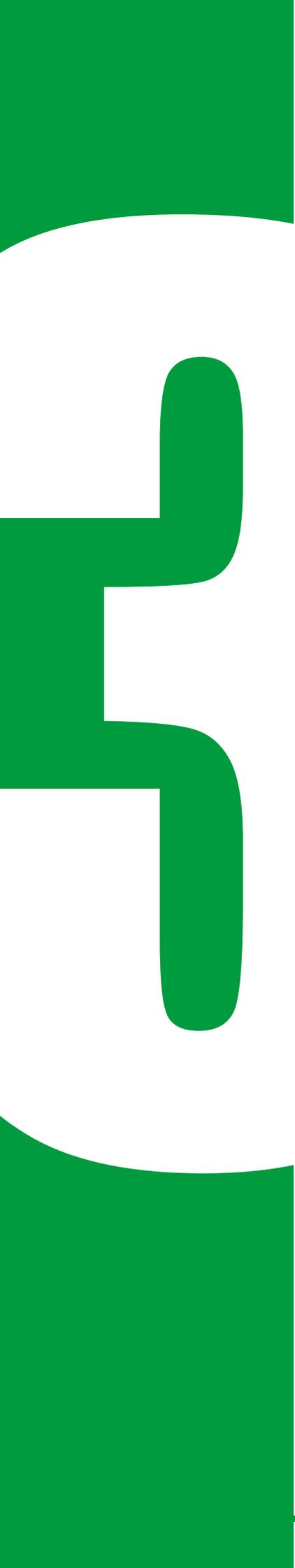
Result of drain cleaning with Hair Remover Drain-free



#### RECOMMENDED CLEANERS

Cleaner	Page
<b>Limescale Barracuda</b>	<b>66</b>
<b>Floor Cleaner STRONG</b>	<b>49</b>
<b>New Fresh Air</b>	<b>66</b>
<b>UNI-SORB</b>	<b>49</b>
<b>Hand Cleaning Cream</b>	<b>67</b>
<b>Rubbel Dubbel</b>	<b>67</b>
<b>OMNI</b>	<b>60</b>





# PRODUCTS

## Product divisions

- Cleaning
- Cleaning systems
- Protecting
- Lubricating
- Welding

# INNOVATION



# THE BIO-CIRCLE PRODUCTS

## A matter that is near to our hearts

Conscientious handling of resources. Sustainability. Environmental awareness. Occupational health and safety.

**That's what we stand for. That's what our Bio-Circle products stand for.**

Parts washers and our automatic parts washing systems, all being filled with their own specifically developed BIO-CIRCLE Liquids – naturally label- and VOC-free.

**MAKING GREEN WORK.**



**BY REDUCING OR DISPENSING WITH SOLVENTS  
WE ARE TAKING A STANCE. FOR THE ENVIRONMENT,  
THE USER, THE ENTREPRENEUR. FOR YOU.**



# CLEANING

„CLEANING? PLAY SAFE!“

(Bio-Circle Surface Technology GmbH member of staff)



# AT A GLANCE

	pH value* values from the MSDS	VOC content in %	Flashpoint in °C	Parts washer	Ultrasound	RWR	Steel/stainless steel	Aluminium	Non-ferrous metals	Plastics	Varnished surfaces	Zinc-coated surfaces	HAZMAT symbol	Signal word	VOC free!	VOC reduced!	NSF	Non-labelled
ALUSTAR 100	9,6	0	-											-				
ALUSTAR 200	12,7	0	-										⚠	Warning				
ALUSTAR 300	13 – 14	0	-										⚠	Danger				
Multi Clean	13	5	-										⚠	Danger		VOC reduced!		
BIO-CIRCLE L	8,5	0	-											-			NSF	⬢
BIO-CIRCLE L Ultra	8,5 – 9,5	0	-											-			NSF	⬢
BIO-CIRCLE L Aluminium	7	0	-											-			NSF	⬢
BIO-CIRCLE L Heavy Duty	9	0	-											-				⬢
BIO-CIRCLE L Turbo	9	0	-											-				⬢
BIO-CIRCLE L Star	8,5 – 9,5	0	-											-			NSF	⬢
Liquid EVO <b>NEW!</b>	8,0	1	-											-				⬢
Bio Grease-Ex	-	100	35										🔥	Danger				
BIO RUST F	6,5 – 7,5	0	-											-			NSF	⬢
CB 100	10,8	0	-											-				⬢
CB 100 Alu	8,6	0	-											-			NSF	⬢
CB 100 Blue	10,8	0	-											-				⬢
CB 100 LR	10,5	0	-											-				⬢
CB 100 Alu LR	8,5	0	-											-				⬢
Clean AD(hesive) 100	-	59,5	83											-				⬢
Clean AD(hesive) 200	-	19	118											-		VOC reduced!		⬢
Clean AD(hesive) 300	-	79,8	83											-				⬢
E-NOX Clean	1,5	5	-										⚠	Danger		VOC reduced!		
E-NOX-I	< 1	2,5	-										⚠	Warning			NSF	⬢
E-NOX Shine	11,4	< 1	-											-				⬢
E-NOX Care	-	0	130										⚠	Danger				
FOR CLEAN	10	0	-											-				⬢
FOR CLEAN F	9	0	-											-			NSF	⬢
FOR CLEAN V	10	0	-											-			NSF	⬢
FT 100	10,8	13	47											-		VOC reduced!	NSF	⬢
FT 200	11,4	11	38											-		VOC reduced!		⬢
FT 300	10,8	18,9	40											-		VOC reduced!		⬢
FT 400	11,4	33,3	48											-				⬢
Floor Cleaner	10,2	0	-											-				⬢
Floor Cleaner STRONG	13	5	-										⚠	Danger		VOC reduced!		

Suitable  
 Suitable to a limited extent  
 Not suitable

	pH value* values from the MSDS	VOC content in %	Flashpoint in °C	Parts washer	Ultrasound	RWR	Steel/stainless steel	Aluminium	Non-ferrous metals	Plastics	Varnished surfaces	Zinc-coated surfaces	HAZMAT symbol	Signal word	VOC free!	VOC reduced!	NSF	Non-labelled
GS 200	-	19	118											-			NSF	
Hair Remover Drain-free	14	0	-											Danger				
Limescale Barracuda	2	0	-											-				
OMNI	-	0	100											Danger				
OMNI 200	-	0	ap. 200											-				
Power Cleaner 150	2,2	0	-											-			NSF	
Power Cleaner 200	1,5	2,2	-											Warning				
Power Cleaner 300	1,6	0	-											Warning				
Power Cleaner 400	<1	2,6	-											Danger				
Power Cleaner DB	<1	2,6	-											Danger			NSF	
Power Cleaner KST 2.0	<1	<1	-											Danger				
PROLAQ L 100	8	10	41											Warning				
PROLAQ L 500	-	20	61											Warning				
PROLAQ L 400	-	45	61											-				
PROLAQ US	7	8	-											Warning				
Smoke Resin Remover	14	0	-											Danger			NSF	
Smoke Resin Remover DB	14	0	-											Danger				
Smoke Resin Remover schaum.	14	0	-											Danger				
Remove AD(hesive) 200	8 – 9	2,2	-											Warning				
STAR 100	10,5	0	-											Warning				
STAR 200	13,5	0	-											Danger				
STAR 300	14	0	-											Danger				
STAR US 1	1,5	2,2	-											Warning				
STAR US 2	13,5	5	-											Warning				
STAR US 3	12	0	-											Danger				
STAR US 4	13 – 14	0	-											Danger				
STAR US 5	14	0	-											Danger				
STAR US 6 <b>NEW!</b>	11	0	-											-				
Stripper Gel	-	2,3	-											Warning				
Stripper	12,5	10	-											Warning			NSF	
UNO S F	13	5	-											Danger				
UNO W	13	0	-											Danger			NSF	
UNO S V	13-14	5	-											Danger				
UNO S PF	13	5	-											Danger				
UNO X	14	1,5	-											Danger				

- Suitable
- Suitable to a limited extent
- Not suitable

# THE CB 100 RANGE

## The cold cleaner alternative – cold as CB 100

**CB 100 – the alternative to cold cleaners: water-based, slightly alkaline industrial cleaners without solvents and non-labelled!** The power of nature provides the Nature Boost cleaners with excellent dissolving powers. **They are based on renewable raw materials, thus increasing occupational health and safety and reducing operating costs, and the sustainable ingredients make them user-friendly and environmentally compatible.**

The low-foaming CB cleaners are for manual and mechanical use, provide temporary corrosion protection, and have a long service life thanks to their recyclability.

### CB 100

- ▶ Suitable for the food industry
- ▶ Ready for use



**A50025** 500 ml PET bottle with trigger

PU: 20 x 500 ml (1 box)

**A02025** 20 L jerrycan

**A20025** 200 L plastic drum

**A10025** 1000 L IBC

### CB 100 LR

- ▶ Low-residue



**A50085** 500 ml PET bottle with trigger

PU: 20 x 500 ml (1 box)

**A02085** 20 L jerrycan

**A20085** 200 L plastic drum

**A10085** 1000 L IBC

### CB 100 Alu LR

- ▶ For sensitive materials such as aluminium, low-residue



**A02036** 20 L jerrycan

**A20036** 200 L plastic drum

**A10036** 1000 L IBC





## CB 100 Alu

- ▶ Special aluminium formula for heat-tinting protection



<b>A50049</b>	500 ml PET bottle with trigger PU: 20 x 500 ml (1 box)
<b>A02049</b>	20 L jerrycan
<b>A20049</b>	200 L plastic drum
<b>A10049</b>	1000 L IBC

## CB 100 Blue

- ▶ Low-temperature cleaner



<b>A02032</b>	20 L jerrycan
<b>A20032</b>	200 L plastic drum
<b>A10032</b>	1000 L IBC

**The cleaners remove extremely persistent contaminations**, such as greases, oils, separating agents, nicotine, smoke residues, soot, wear particles and swarf, from steel and stainless steel, in certain cases also from aluminium, non-ferrous metals, zinc-coated surfaces, etc.

**FIELD OF USE:** across all industries, maintenance of machines and motors, etc. Can be used in manual applications, in parts washers, in cold cleaner parts washers, in immersion baths, in ultrasonic cleaning devices, et al.

# CLEANING AND PRIMING BEFORE BONDING

Extremely high adhesive strength – cleaning and priming in one go.

There are three new innovations for bonding: **Clean AD(hesive) 100**, **Clean AD(hesive) 200**, and **Clean AD(hesive) 300**. **Gone are the days of hazard-label products and elaborate employee protection** (exhaust systems and PPE). The three cleaners with priming capacities clean the surface and prime it in one go. Greases, oils, and adhesive residues are easy to remove, and at the same time the products are good at increasing the adhesive strength on difficult surfaces such as PVC and PE. The adhesive strength is amplified several times over. The residues of the Clean AD(hesive) range amplify the adhesive strength. No need to wait for the end of the flash-off time; “wet” bonding is possible. More flexible working times thanks to bonding immediately after cleaning. At the end of the flash-off time, there are still enough residues on the part to achieve an amplification in adhesive strength. **The label-free cleaners are based on renewable raw materials and can be stored and used anywhere. Extraction during processing is no longer necessary.**

## Clean AD(hesive) 100

- ▶ **CLEANS AND PRIMES** in one step: plastics such as PVC and PE
- ▶ **CLEANS** label-free and safely: surfaces that are easy to paste, such as metals, which do not need any boost in adhesive strength
- ▶ **2 to 3 times higher adhesive strength**
- ▶ **Virtually residue-free**



**A500741** 500 ml PET bottle with trigger  
PU: 20 x 500 ml (1 box)

**A020741** 20 L jerrycan

**A200741** 200 L plastic drum

**A100741** 1000 L IBC

## Clean AD(hesive) 200

- ▶ **CLEANS AND PRIMES** in one step: plastics such as PVC and PE
- ▶ **CLEANS** label-free and safely: surfaces that are easy to paste, such as metals, which do not need any boost in adhesive strength
- ▶ **5 times higher adhesive strength**
- ▶ **Slight film of adhesion-boosting substances**



**A500742** 500 ml PET bottle with trigger  
PU: 20 x 500 ml (1 box)

**A020742** 20 L jerrycan

**A200742** 200 L plastic drum

**A100742** 1000 L IBC

## Clean AD(hesive) 300

- ▶ **CLEANS AND PRIMES** in one step: plastics such as PVC and PE
- ▶ **CLEANS** label-free and safely: surfaces that are easy to paste, such as metals, which do not need any boost in adhesive strength
- ▶ **3 to 7 times higher adhesive strength**
- ▶ **Thick film of adhesion-boosting substances**



**A500743** 500 ml PET bottle with trigger  
PU: 20 x 500 ml (1 box)

**A020743** 20 L jerrycan

**A200743** 200 L plastic drum

**A100743** 1000 L IBC

Checking adhesive strength



# THE FOR CLEAN RANGE

## The gentle allrounders – for uncomplicated contaminations

Gentle, flexible, uncomplicated – that’s why these water-based, slightly alkaline FOR CLEAN cleaners are universally applicable. **They are VOC-free and non-labelled, hence safe to use, and a must-have for every user. Occupational health and safety are not only a word here, and operating costs can be reduced.** The odourless FOR CLEAN cleaners can also be used indoors and on almost any material. They are for manual use and water-miscible (1:20), depending on the type and level of contamination.

### FOR CLEAN

- ▶ Gentle, flexible, uncomplicated



<b>A50080</b>	500 ml PET bottle with trigger PU: 20 x 500 ml (1 box)
<b>A02080</b>	20 L jerrycan
<b>A20080</b>	200 L plastic drum
<b>A10080</b>	1000 L IBC

### FOR CLEAN F

- ▶ Low-foaming, also for mechanical applications, e.g. in pressure washers, floor cleaning systems, etc.



<b>A50013</b>	500 ml PET bottle with trigger PU: 20 x 500 ml (1 box)
<b>A02013</b>	20 L jerrycan
<b>A20013</b>	200 L plastic drum
<b>A10013</b>	1000 L IBC

### FOR CLEAN V

- ▶ NSF-certified
- ▶ Slightly viscous cleaning gel
- ▶ Ideal for perpendicular surfaces



<b>A50022</b>	500 ml PET bottle with trigger PU: 20 x 500 ml (1 box)
<b>A02022</b>	20 L jerrycan
<b>A20022</b>	200 L plastic drum
<b>A10022</b>	1000 L IBC

The **FOR CLEAN** cleaners remove **light contaminations**, such as grease, oil, separating agents, food residues, nicotine, smoke residues, soot, wear particles and swarf. **From:** stainless steel, steel, tiles, plastics, wood, and varnished surfaces. In certain cases, also from non-ferrous metals and zinc-coated surfaces, etc.

**FIELD OF USE:** Metalworking, vehicle preparation, caravan preparation, facility cleaning, ultrasonic cleaning, outdoor sector, food industry.

Cleaning work space with FOR CLEAN



# UNO-RANGE AND MULTI CLEAN

#powerful

The water-based alkaline and phosphate-free **intensive cleaners** for manual and mechanical cleaning act fast and effectively. The **UNOs and Multi Clean are solvent-reduced** – a clear advantage for the environment. In addition, the power cleaners are water-miscible (up to 1:40).

## Multi Clean

- ▶ An allrounder from A to Z
- ▶ For manual and mechanical use

**Please note:**

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



**A10124** 1000 ml plastic bottle with trigger

PU: 10 x 1000 ml (1 box)

**A01024** 10 L jerrycan

**A02024** 20 L jerrycan

**A20024** 200 L plastic drum

**A10024** 1000 L IBC

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

## UNO S F

- ▶ Low-foaming



**A50035** 500 ml bottle with trigger

PU: 20 x 500 ml (1 box)

**A01035** 10 L jerrycan

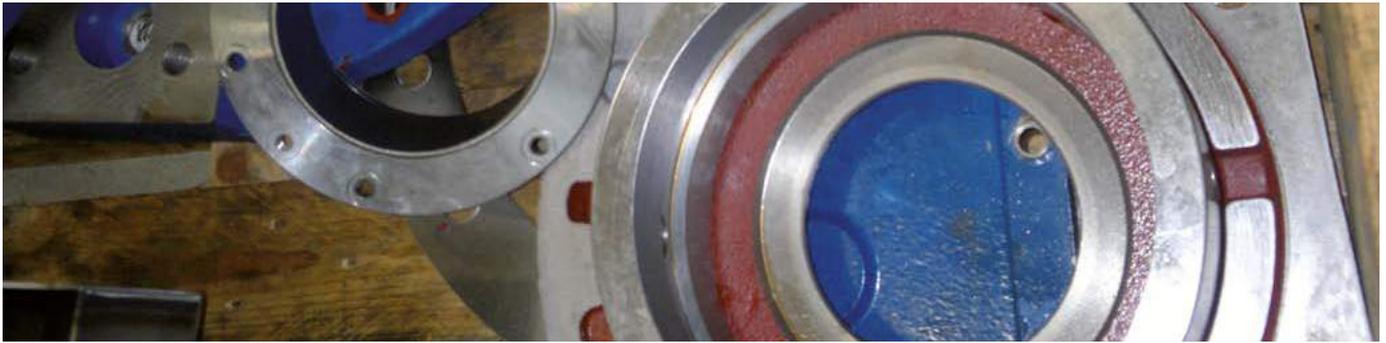
**A02035** 20 L jerrycan

**A20035** 200 L plastic drum

**A10035** 1000 L IBC

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





## UNO S PF

- ▶ With temporary corrosion protection
- ▶ Low-foaming



**A50050** 500 ml bottle with trigger

PU: 20 x 500 ml (1 box)

**A02050** 20 L jerrycan

**A20050** 200 L plastic drum

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

## UNO S V

- ▶ NSF-certified
- ▶ For manual applications only, also ready for use
- ▶ Viscous
- ▶ Perfect for cleaning perpendicular surfaces



**A00134** 1000 ml plastic bottle with trigger

PU: 10 x 1000 ml (1 box)

**A01034** 10 L jerrycan

**A02034** 20 L jerrycan

**A20034** 200 L plastic drum

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



## UNO X

- ▶ For extremely persistent contaminations
- ▶ For manual use
- ▶ High-foaming, long contact time also on perpendicular surfaces
- ▶ No corrosion protection



VOC reduced!

**A02003** 20 L jerrycan

**A20003** 200 L plastic drum

**A10003** 1000 L IBC

Hazard warnings: Eye Dam. 1,

Skin Corr. 1A, Met. Corr. 1

## UNO W

- ▶ Product description in accordance with ÖNORM B 5105:
- ▶ Universal workshop cleaner
- ▶ Water-based, phosphate-free, alkaline surfactant cleaner
- ▶ Can also be used in manual applications
- ▶ For the cleaning and degreasing of machinery, tools, etc.
- ▶ Dissolves oils, greases, resins, waxes, nicotine, insect speck, soot, bitumen- and tar spatter, etc.
- ▶ Compatible with oil separators
- ▶ TESTED IN ACCORDANCE WITH ÖNORM B 5105
- ▶ Registration number: ON-N 2011 139



VOC free!

**A00189** 1000 ml plastic bottle with trigger

PU: 10 x 1000 ml (1 box)

**A02089** 20 L jerrycan

**A20089** 200 L plastic drum

**A10089** 1000 L IBC

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

**Extremely persistent contaminations**, such as oil, grease, separating agents, smoke, soot and nicotine, don't stand a chance with the UNOs. In certain cases, also burnt-in organic contaminations, wear particles, swarf, rust, oxidation, heat tinting, insect speck, and rubber residues can be removed.

**Material:** steel, stainless steel, tiles, plastics, in certain cases also varnished and zinc-coated surfaces, etc.

**FIELD OF USE:** Maintenance and degreasing processes in the metalworking- and food industry et al. For manual and mechanical applications, e.g. in immersion baths, in automatic parts washers, floor cleaning systems, pressure washers, etc.

UNO W application

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

Pressure washers 3 – 5 %

# FLOOR CLEANERS

## Thorough and fast

The water-based, low-foaming alkaline Floor Cleaners are suited for manual and mechanical applications. They clean all water-resistant flooring materials **thoroughly without attacking the material. They are water-miscible and solvent-free or -reduced and hence environmentally compatible.**

UNI-SORB is a mineral-based granulate that absorbs any type of liquid fast and effectively, thus minimizing the risk of accidents that may occur in the presence of oily and slippery spillages.

## Floor Cleaner

- ▶ For everyday floor cleaning
- ▶ Good wetting properties with oily contaminations



<b>A02015</b> 20 L jerrycan
<b>A20015</b> 200 L plastic drum
<b>A10015</b> 1000 L IBC

## Floor Cleaner STRONG

- ▶ Extra strong cleaning activity



<b>A02096</b> 20 L jerrycan
<b>A20096</b> 200 L plastic drum
<b>A10096</b> 1000 L IBC
Hazard warnings: Eye Dam. 1, Skin Irrit. 2

## UNI-SORB

- ▶ Efficient binding agent
- ▶ Odourless and dust-free
- ▶ Ideal for oils, greases, benzenes, acids, etc.



<b>E01010</b> 10 L pail
<b>E03010</b> 30 L pail
<b>E12010</b> 120 L drum with lid

**The floor cleaners remove** oil, separating agents, nicotine, smoke residues, soot, wear particles, swarf, insect speck, rubber residues, in certain cases also greases and foodstuffs, **from** stainless steel, steel, tiles, wood, plastics, linoleum, PVC, rubber and matte stones (such as marble and granite).

**FIELD OF USE:** all water-resistant flooring materials in production halls, schools, gyms, etc.

**Please note:**

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

# THE FT RANGE

#SimplyBrilliant

The fast-drying FTs are residue- and streak-free or virtually streak-free cleaners for surface pre-treatment and final cleaning. Perfect for manual cleaning, degreasing before varnishing, or the removal of adhesive residues, machining oils or fingerprints.

They are non-labelled and VOC-reduced, which makes them user-friendly and environmentally compatible.

The FTs sorted by cleaning power: FT 100 → FT 300 → FT 200 → FT 400

## FT 100

- ▶ Residue- and streak-free
- ▶ Suitable for the food industry



<b>A50057</b> 500 ml PET bottle with trigger PU: 20 x 500 ml (1 box)
<b>A01057</b> 10 L jerrycan
<b>A02057</b> 20 L jerrycan
<b>A20057</b> 200 L plastic drum
<b>A10057</b> 1000 L IBC

## FT 300

- ▶ Residue- and streak-free
- ▶ Even faster evaporation than with FT 100



<b>A50057-97</b> 500 ml PET bottle with trigger PU: 20 x 500 ml (1 box)
<b>A02057-97</b> 20 L jerrycan
<b>A20057-97</b> 200 L plastic drum
<b>A10057-97</b> 1000 L IBC





## FT 200

- ▶ Virtually residue- and streak-free
- ▶ Ideal for wetting oily surfaces
- ▶ Temporary corrosion protection



<b>A50057-98</b> 500 ml PET bottle with trigger PU: 20 x 500 ml (1 box)
<b>A02057-98</b> 20 L jerrycan
<b>A20057-98</b> 200 L plastic drum
<b>A10057-98</b> 1000 L IBC

## FT 400

- ▶ Virtually residue- and streak-free
- ▶ Excellent dissolving power
- ▶ Temporary corrosion protection



<b>A50057-93</b> 500 ml PET bottle with trigger PU: 20 x 500 ml (1 box)
<b>A02057-93</b> 20 L jerrycan
<b>A20057-93</b> 200 L plastic drum
<b>A10057-93</b> 1000 L IBC

**The FTs remove** oil, separating agents, grease, fingerprints, wear particles, swarf, nicotine, and adhesive residues.

**From:** stainless steel, steel, tiles, aluminium, non-ferrous metals and zinc-coated surfaces. In certain cases, also from wood, plastics, rubber and varnished surfaces et al.

**FIELD OF USE:** across all industries, metalworking/CNC, automotive, plastics processing, railways, the trades.

# THE POWER CLEANER RANGE

## Say goodbye to limescale

Limescale doesn't have to pose a problem, neither aesthetically nor hygienically, neither in pipes nor on surfaces. The **Power Cleaners** are free from phosphates and hydrofluoric acid. In addition, they are **VOC-free or -reduced**. The water-based acidic cleaners make your surfaces shine and are water-miscible (up to 1:40).

### Power Cleaner 150

- ▶ Approved for use in the food industry
- ▶ For manual and mechanical use

**Please note:** Not suitable for marble or limestone!



**A50020** 500 ml bottle with trigger

PU: 20 x 500 ml (1 box)

**A02020** 20 L jerrycan

**A20020** 200 L plastic drum

### Power Cleaner 200

- ▶ Only for manual and ultrasonic applications, can be heated up to 90°C/194°F



**A50010** 500 ml bottle with trigger

PU: 20 x 500 ml (1 box)

**A02010** 20 L jerrycan

**A20010** 200 L plastic drum

Hazard warnings: Eye Irrit. 2,

Skin Irrit. 2, Met. Corr. 1

### Power Cleaner 300

- ▶ Only for manual cleaning, high-foaming
- ▶ The strongest cleaner of the range

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



**A50014** 500 ml plastic bottle

PU: 20 x 500 ml (1 box)

**A01014** 10 L jerrycan

**A02014** 20 L jerrycan

**A20014** 200 L plastic drum

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

Met. Corr. 1, STOT SE 3





## Power Cleaner 400

- ▶ Material-friendly, suited for non-ferrous metals
- ▶ For manual and mechanical applications



**A02094** 20 L jerrycan

**A20094** 200 L plastic drum

Hazard warnings: Eye Dam. 1,

Skin Corr. 1B, Met. Corr. 1

## Power Cleaner DB

- ▶ Especially for mechanical applications in the RWR (cleaning and rinsing of pipes) and in the HTW



**A01028** 10 L jerrycan

**A02028** 20 L jerrycan

**A20028** 200 L plastic drum

**A10028** 1000 L IBC

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

Met. Corr. 1

## Power Cleaner KST 2.0

- ▶ Ready for use
- ▶ Especially for mechanical applications in the RWR KST



**A02009** 20 L jerrycan

**A20009** 200 L plastic drum

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

The cleaners of the Power Cleaner range make short work of **extremely persistent contaminations such as limescale, mineral deposits, and in certain cases also rust, oxidation and heat tinting**. Stainless steel, steel, tiles, aluminium, plastics, and in certain cases also non-ferrous metals, etc. will shine in new splendour.

**FIELD OF USE:** Sanitary facilities, outdoor areas (terraces, pavements, parks), food sector, plastics processing (cleaning of the cooling ducts of plastic injection moulding tools), railways.

**Possible mechanical applications:** pipe- and heat exchanger cleaning devices, cleaning and rinsing systems for the cooling ducts of plastic injection moulding tools, hot-water parts washers, and ultrasonic cleaning devices.

# ADDITIONAL DOSING FOR MACHINE CLEANERS

## Less foam, more corrosion protection

For fluids in cleaning systems that develop too much foam and offer no or not enough corrosion protection: the little helpers for additional dosing that you simply add to the cleaner.

They are solvent-free and non-labelled or low-labelled, and hence user-friendly and environmentally compatible.

### Defoamer with silicone

- ▶ Fast and permanent foam destruction
- ▶ To be used in hot-water parts washers, etc.



<b>A01087</b> 10 L jerrycan
<b>A02087</b> 20 L jerrycan
Hazard warnings: Acute Tox. 4

### Defoamer silicone-free

- ▶ Fast and permanent foam destruction
- ▶ To be used in hot-water parts washers, etc.



<b>A01087-01</b> 10 L jerrycan
<b>A02087-01</b> 20 L jerrycan

### Corrosion protection for water-based systems

- ▶ For neutral to alkaline machine cleaners
- ▶ Low-foaming
- ▶ Amine-based
- ▶ Optimal for steel-, iron-, and casting materials



<b>A00111</b> 1000 ml plastic bottle
PU: 12 x 1000 ml (1 box)
<b>A01011</b> 10 L jerrycan
<b>A02011</b> 20 L jerrycan
<b>A12011</b> 120 L drum with lid

#### FIELD OF USE:

Ideally suited for the STAR-, ALUSTAR- and STAR US products



#### Tip:

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

# THE SC RANGE

## For special requirements



The Special Cleaners are based on natural citrus peel extracts and dissolve extreme contaminations such as glue- and adhesive residues.

All cleaners of the SC range are ready for use, for manual applications, and fast-drying. High cleaning activity at low temperatures (suited for use at ambient temperature and down to -30 °C/-22 °F).

### SC 100

► Pleasant odour

**Please note:** Carry out a compatibility test on varnished surfaces, plastics- and rubber components!

### SC 200

► Very fast drying

### SC 400

► Maximum dissolving power

<b>A40037</b> 400 ml aerosol can
PU: 12 x 400 ml (1 box)
<b>A50037</b> 500 ml tin bottle
PU: 20 x 500 ml (1 box)
<b>A01037</b> 10 L jerrycan
<b>A02037</b> 20 L jerrycan
<b>A20037</b> 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
<b>A50042</b> 500 ml tin bottle
PU: 20 x 500 ml (1 box)
<b>A02042</b> 20 L jerrycan
<b>A20042</b> 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
<b>A50016</b> 500 ml tin bottle
PU: 20 x 500 ml (1 box)
<b>A02016</b> 20 L jerrycan
<b>A20016</b> 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

The SCs dissolve extremely persistent contaminations fast and effectively: oil, separating agents, glue- and adhesive residues, wax, rubber residues, sealants, Sharpie® stains, labels, tar and bitumen.

**Material:** stainless steel, steel, tiles, aluminium, non-ferrous metals, zinc-coated surfaces; also, in certain cases, rubber and plastics et al.

**FIELD OF USE:** ideal for metal processing, plastics processing, and printing-, textile- and rubber industries.

# THE STAR RANGE

## A brilliant appearance

The water-based, alkaline STARS live up to their name, for they are low-foaming, **VOC-free machine cleaners that dissolve persistent contaminations.**

They are water-miscible (up to 1:200), feature a fabulous cleaning activity already at ambient temperature, and can be heated up to 60°C/140°F. All three cleaners provide temporary corrosion protection; they are demulsifying and hence recyclable with a long service life.

### STAR 100

- ▶ Low-residue
- ▶ Salt-free
- ▶ Ideal for cleaning before and after hardening processes



<b>A02095</b> 20 L jerrycan
<b>A20095</b> 200 L plastic drum
<b>A10095</b> 1000 L IBC
Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

### STAR 200

- ▶ Effective, universal and high-yielding
- ▶ Low-temperature cleaner
- ▶ Ideal for pre- and intermediate cleaning



<b>A02078</b> 20 L jerrycan
<b>A20078</b> 200 L plastic drum
<b>A10078</b> 1000 L IBC
Hazard warnings: Eye Dam. 1, Skin Corr. 1A

### STAR 300

- ▶ Removes very strong contaminations, oil incrustations and resin formations



<b>A02079</b> 20 L jerrycan
<b>A20079</b> 200 L plastic drum
<b>A10079</b> 1000 L IBC
Hazard warnings: Eye Dam. 1, Skin Corr. 1A, Met. Corr. 1

STAR cleaning	Aluminium	Zinc coated 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 STARS remove:** grease, oil, separating agents, nicotine, smoke residues, soot, wear particles and swarf. Also, in certain cases: foodstuffs and burnt-in organic contaminations.

**From:** stainless steel, steel, tiles, plastics et al.

**FIELD OF USE:** metalworking, automotive, railways, food-stuffs, plastics processing. In immersion baths and automatic parts washers.

# THE ALUSTAR RANGE

## Past the finish line with VOC-free cleaners

The ALUSTARs make aluminium shine again. **For each contamination the right aluminium cleaner, and a VOC-free one at that.**

The water-based, alkaline ALUSTARs are low-residue and low-foaming machine cleaners **that protect aluminium and other sensitive surfaces from heat tinting with their special aluminium formula.** Moreover, they are perfect for low-temperature cleaning and provide temporary corrosion protection.

### ALUSTAR 100

► For light contaminations



- A02077** 20 L jerrycan
- A20077** 200 L plastic drum
- A10077** 1000 L IBC

### ALUSTAR 200

► For strong contaminations



- A02084** 20 L jerrycan
- A20084** 200 L plastic drum
- A10084** 1000 L IBC
- Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

### ALUSTAR 300

- Product description in accordance with ÖNORM B 5105:
- For extremely persistent contaminations
- Water-based, low-foaming, phosphate-free surfactant cleaner
- For mechanical cleaning in spray-, immersion- and ultrasonic cleaning devices
- Cleans and degreases heavily contaminated parts of a wide range of materials
- Compatible with oil separators
- TESTED IN ACCORDANCE WITH ÖNORM B 5105 – registration number: ON-N 2011 138



- A02029** 20 L jerrycan
- A20029** 200 L plastic drum
- A10029** 1000 L IBC
- Hazard warnings: Eye Dam. 1, Skin Corr. 1B

ALUSTAR cleaning	Aluminium	Zinc-coated 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
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

**A variety of contaminations**, just as required, are removed from stainless steel, steel, aluminium, plastics, and in certain cases also from non-ferrous metals, varnished and zinc-coated surfaces, etc. Grease, oil, separating agents, nicotine, smoke residues, soot, wear particles and swarf don't stand a chance.

**FIELD OF USE:** automotive, metal processing, plastics processing, railways; machine maintenance, can be used in immersion baths, in automatic parts washers, in ultrasonic cleaning devices et al.

# THE STAR US RANGE

## US as in ultrasound

The STAR US cleaners are ideal for use in ultrasonic cleaning devices.  
**They are VOC-free or -reduced, demulsifying and hence recyclable with a long service life.**

Moreover, the water-based alkaline cleaners are water-miscible.

### STAR US 1

- ▶ The dark horse of the range, because this STAR US cleaner is acidic
- ▶ Removes limescale, mineral deposits, rust, oxidation and heat tinting



<b>A00553-1</b> 5 L jerrycan
<b>A02053-1</b> 20 L jerrycan
Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

### STAR US 2

- ▶ Universally applicable
- ▶ Effective already at ambient temperature



<b>A00553-2</b> 5 L jerrycan
<b>A02053-2</b> 20 L jerrycan
Hazard warnings: Eye Dam. 1, Skin Irrit. 2

### STAR US 3

- ▶ Alternative to solvents
- ▶ Removes extremely persistent contaminations, especially carbonizations



<b>A00553-3</b> 5 L jerrycan
<b>A02053-3</b> 20 L jerrycan
Hazard warnings: Eye Dam. 1, Skin Corr. 1B, STOT SE 3

STAR US cleaning	Aluminium	Zinc-coated surfaces	Non-ferrous metals	Brass	Stainless steel	Steel	Plastics	Alkali-resistant surfaces	Acid-resistant surfaces
	STAR US 1	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	-
STAR US 6	X	X	X	X	X	X	X	X	-





## STAR US 4

- ▶ Especially for the cleaning of aluminium
- ▶ Special aluminium formula for heat-tinting protection



**A00553-4** 5 L jerrycan

**A02053-4** 20 L jerrycan

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

## STAR US 5

- ▶ Removes extremely persistent incrustations, carbonizations and resinifications



**A00553-5** 5 L jerrycan

**A02053-5** 20 L jerrycan

Hazard warnings: Eye Dam. 1,

Skin Corr. 1A, Met. Corr. 1

## STAR US 6 **NEW!**

- ▶ The emulsifying all-rounder of the range
  - the washed-off oil is dispersed in the cleaning bath
  - neat removal of the component
- ▶ Removes machining oils, separating agents, vegetable oils and greases, grit and grinding dust, fresh paint, etc.
- ▶ Environmentally friendly and safe → VOC- and label-free
- ▶ Can be used at room temperature, recommended cleaning temperature 40 – 60 °C, heating up to 80 °C possible
- ▶ Silicate-free, barium-free
- ▶ Especially for use in ultrasonic cleaning devices, also in immersion baths



**A00553-6** 5 L jerrycan

**A02053-6** 20 L jerrycan

The **STAR-US cleaners remove extremely persistent contaminations:** grease, oil, separating agents, nicotine, smoke residues, soot, wear particles and swarf; also, in certain cases: burnt-in organic contaminations, resin, tar, and rubber residues

**Material:** stainless steel, steel, tiles, plastics. In certain cases, also aluminium and non-ferrous metals.

**FIELD OF USE:** metal processing/CNC, plastics processing, automotive, railways et al.

# OMNI

## Evocative results

These two multifunctional sprays dissolve, lubricate, protect, and clean, which makes them indispensable in day-to-day use. And they contain no silicone, no acid, and no Teflon®, which makes them user-friendly and environmentally compatible.

They feature excellent capillarity, which means that the sprays creep under the contaminations, dissolving them.

## OMNI

- ▶ Pleasant vanilla scent
- ▶ Increased capillarity and hence a stronger effect



**E40016** 400 ml aerosol can  
PU: 12 x 400 ml (1 box)

**E50016** 500 ml PET bottle with trigger  
PU: 20 x 500 ml (1 box)

**E01016** 10 L jerrycan

**E02016** 20 L jerrycan

**E20016** 200 L metal drum

**E10116** 1000 L IBC

Hazard warnings: Asp. Tox. 1

Aerosol: Flam. Aerosol 1

## OMNI 200

- ▶ Odourless



**E50018** 500 ml PET bottle with trigger  
PU: 20 x 500 ml (1 box)

**E02018** 20 L jerrycan

**E20018** 200 L metal drum

**E10018** 1000 L IBC

## The OMNI sprays...

**dissolve:** burnt-in organic contaminations; waxes, bitumen, resinified greases and oils are removed just as well as light residues and fingerprints;

**lubricate:** moving parts, such as chains, hinges, and cogwheels;

**protect:** from rust and creep current;

**clean:** tools, machines, electronic circuits, etc.; metals of any kind and varnished surfaces.

**FIELD OF USE:** production, maintenance, workshops, construction, and agriculture. For manual applications and immersion baths.

# THE SMOKE RESIN REMOVER RANGE

## Return to splendour

These three cleaners are solvent-free, and the surfactants are biodegradable.

The smoke resin specialists remove burnt-in contaminations without effort.

The water-based alkaline cleaners are water-miscible.

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

## Smoke Resin Remover

- ▶ Suitable for manual applications
- ▶ Good adhesion to perpendicular surfaces due to active foam
- ▶ Suitable for the food industry



**A50038** 500 ml bottle with trigger with foam nozzle

PU: 20 x 500 ml (1 box)

**A00138** 1000 ml plastic bottle

PU: 12 x 1000 ml (1 box)

**A02038** 20 L jerrycan

**A20038** 200 L plastic drum

Hazard warnings: Eye Dam. 1,

Skin Corr. 1A, Met. Corr. 1

## Smoke Resin Remover, foamless

- ▶ Mechanical applications
- ▶ Ingressed oil and grease can be removed mechanically (by means of a plate separator)



**A00145** 1000 ml plastic bottle

PU: 12 x 1000 ml (1 box)

**A02045** 20 L jerrycan

**A20045** 200 L plastic drum

Hazard warnings: Eye Dam. 1,

Skin Corr. 1A, Met. Corr. 1

## Smoke Resin Remover DB

- ▶ Ready-to-use intensive cleaner for mechanical applications
- ▶ Especially for pipe- and heat exchanger cleaning devices
- ▶ Approved by Deutsche Bahn AG



**A01058** 10 L jerrycan

**A02058** 20 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

**Extremely persistent contaminations, resinified and burnt-in residues** become a thing of the past with the use of the Smoke Resin Remover. They remove burnt-in organic contaminations, grease, oil, separating agents, resin, tar, rubber residues, foodstuffs, smoke residues, soot, wear particles and swarf effortlessly.

**From:** stainless steel, steel, tiles and plastics.

**FIELD OF USE:** food industry (in industrial kitchens: extractor hoods, filters, flues), metal processing/CNC, automotive, railways; in automatic parts washers, immersion baths, ultrasonic cleaning devices et al.

# CLEANERS FOR HARD CASES

#lockstockandbarrel

They dissolve adhesives and sealants, water-based paints and varnishes, or rust. Where other cleaners fail, these removers really get going.

For manual use. Ready for use.

## Stripper

- ▶ Water-based alkaline coating remover
- ▶ Penetrates and removes varnish, impregnation compounds, plastics residues, etc. from stainless steel, steel and tiles
- ▶ Universally applicable in the entire industry
- ▶ Can be used in immersion baths and ultrasonic cleaning devices



<b>A00176</b> 1000 ml plastic bottle
PU: 12 x 1000 ml (1 box)
<b>A02076</b> 20 L jerrycan
<b>A20076</b> 200 L plastic drum
Hazard warnings: Eye Irrit. 2, Skin Irrit. 2

## Stripper Gel

- ▶ Viscous cleaning gel
- ▶ Good adhesion on perpendicular surfaces
- ▶ Removes paint and coatings, graffiti, adhesive residues, varnishes, etc.
- ▶ Can be used on stainless steel, steel, tiles, stone, concrete, etc.



<b>A00556</b> 5 kg jerrycan
<b>A02056</b> 20 kg jerrycan
Hazard warnings: Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2

## Die-Casting Mould Cleaner

- ▶ Oil for the removal of separating agent residues from aluminium die-casting moulds
- ▶ For manual applications
- ▶ Provides temporary corrosion protection
- ▶ Very economical
- ▶ Suited for die-casting moulds made of aluminium, magnesium, and zinc, for cleaning gate valves and ejectors



<b>E02017</b> 20 L jerrycan
<b>E20017</b> 200 L metal drum
<b>E10017</b> 1000 L IBC
Hazard warnings: Asp. Tox. 1

## Bio Grease-Ex

- ▶ Residue-free, fast-drying cleaner
- ▶ Temperature-resistant down to -35 °C/-31 °F
- ▶ Excellent wetting performance
- ▶ Ideal for the cleaning and degreasing of steel and stainless steel, non-ferrous metals, aluminium and zinc-coated surfaces
- ▶ Perfect for cleaning before varnishing, bonding, and labelling

<b>A50097</b> 500 ml tin bottle
PU: 20 x 500 ml (1 box)
<b>A01097</b> 10 L jerrycan
<b>A02097</b> 20 L jerrycan
<b>A20097</b> 200 L metal drum
<b>A10097</b> 1000 L IBC
Hazard warnings: Eye Irrit. 2, Skin Irrit. 2, Flam. Liq. 3, STOT SE 3

## BIO-RUST F

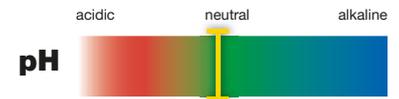
- ▶ Water-based, pH-neutral cleaner and rust remover
- ▶ Low-foaming
- ▶ Free from halogens, material-friendly
- ▶ Ideal for use in immersion processes at ambient temperature, and in ultrasonic cleaning devices
- ▶ For use in automatic parts washers (BIO-CIRCLE Turbo, HTW), at temperatures of 30 – 60 °C/86 – 140 °F
- ▶ For the removal of rust- and lead compounds from metal surfaces



**A02052** 20 L jerrycan

**A20052** 200 L plastic drum

**A10052** 1000 L IBC



## GS 200

Cleaner for the removal of very strong contaminations

- ▶ VOC-reduced, non-flammable
- ▶ High flash point (~ 100° C/212° F) guarantees high application safety
- ▶ NSF-certified



**A50065** 500 ml PET bottle with trigger

PU: 20 x 500 ml (1 box)

**A02065** 20 L jerrycan

**A20065** 200 L plastic drum

**A10065** 1000 L IBC

# ADHESIVE REMOVER

## Problem (dis)solved

**Sticky contaminations do not stand a chance with Remove AD(hesive) 200!** Grease, oil, separating agents, resin, tar, rubber residues, adhesive- and glue residues, and wax are removed. Remove AD(hesive) 200 is a ready-to-use water-based cleaner. The VOC-reduced remover dissolves hardened adhesives and sealants from plastic- and metal surfaces. The cleaner is based on renewable raw materials and pleasant to use. **Its slightly alkaline component makes the remover also suitable for sensitive surfaces such as aluminium and copper.**

## Remove AD(hesive) 200

- ▶ Adhesive remover
- ▶ Removes labels and other adhesives (hot glue, epoxy glue), sealants
- ▶ Suitable for sensitive surfaces
- ▶ Creeping property



**A500740** 500 ml bottle with trigger

**A020740** 20 L jerrycan

**A200740** 200 L plastic drum

**A100740** 1000 L IBC

Hazard warnings: Skin sens 1 ;

Aquatic Chronic 3

**Material:** plastics, metal, aluminium, copper

**FIELD OF USE:** food industry, automotive, trade, etc.  
Wherever adhesives are used or foils have to be removed.



# THE E-NOX RANGE

## Bright spots

These cleaners are ready for use and ideal for smooth stainless-steel surfaces. They are for manual applications and solvent-free or VOC-reduced.

Occupational health and safety and the environment are of primary importance for these cleaners; they are **free from hydrofluoric and nitric acid**.

## E-NOX Care

- ▶ Maintenance oil and long-term protection for stainless steel (indoors and outdoors)



**B50019** 500 ml bottle with trigger

PU: 20 x 500 ml (1 box)

**B00519** 5 L jerrycan

**B02019** 20 L jerrycan

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

## E-NOX Shine

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



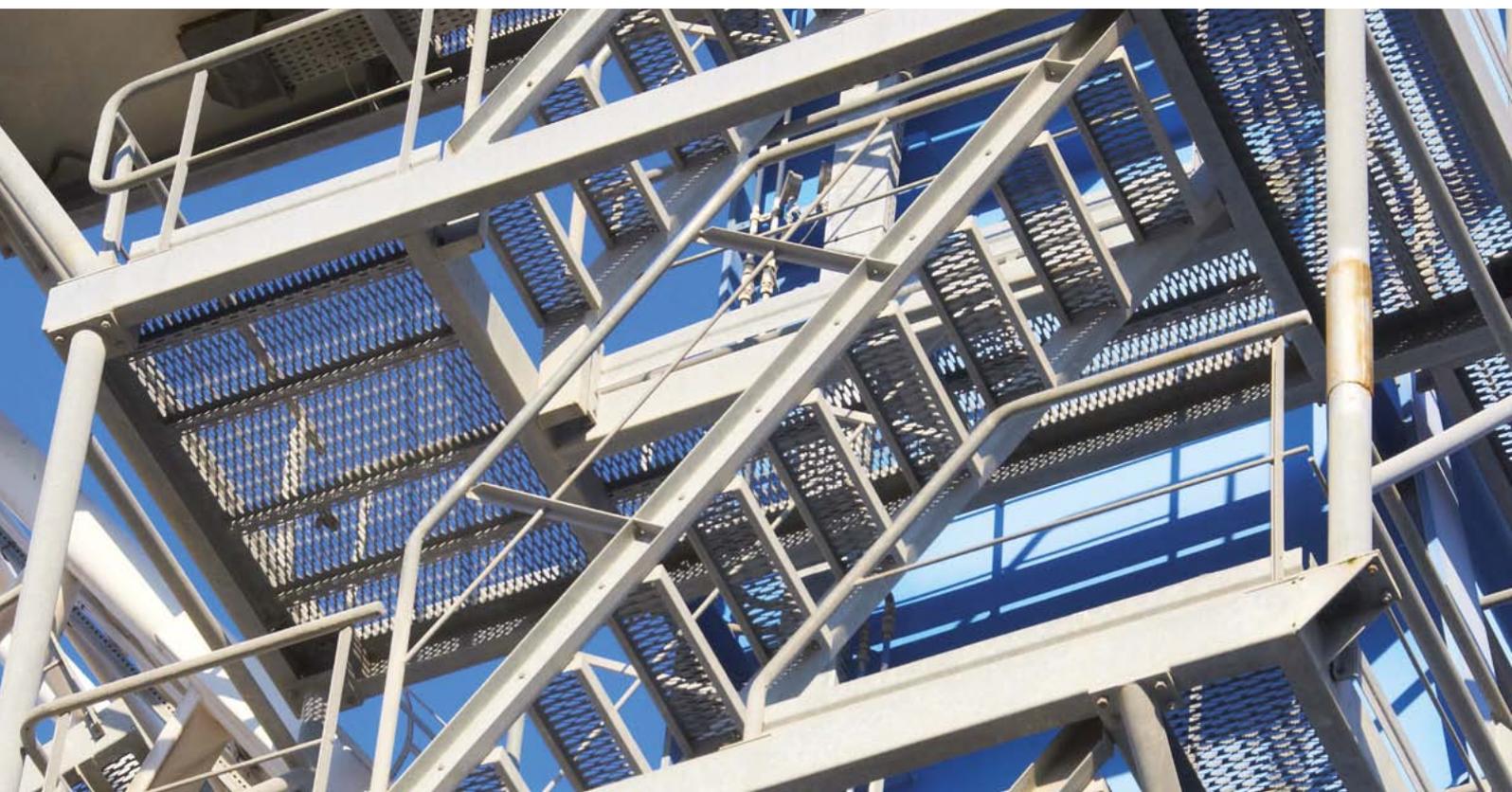
**A50170** 500 ml PET bottle with trigger

PU: 20 x 500 ml (1 box)

**A01070** 10 L jerrycan

**A02070** 20 L jerrycan

**A20070** 200 L plastic drum





## E-NOX Clean

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



**A00141** 1000 ml plastic bottle  
PU: 12 x 1000 ml (1 box)

**A01041** 10 L jerrycan

**A02041** 20 L jerrycan

**A20041** 200 L plastic drum

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

## E-NOX-I

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



**A00192** 1 kg plastic bottle  
PU: 12 x 1 kg (1 box)

**A00592** 5 kg jerrycan

**A02092** 20 kg jerrycan

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

The E-NOX cleaners for stainless steel surfaces remove mineral deposits, rust, oxidation, and heat tinting, in certain cases also fingerprints and limescale.

**From:** stainless steel, steel, tiles, aluminium, and plastics; in certain cases, also from zinc-coated surfaces and non-ferrous metals.

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



**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!



# SANITARY CLEANING

## Hygienic cleanliness

The elimination of unpleasant smells, also urine smells; the removal of limescale and water stains; or the cleaning of clogged drains: each of the four sanitary cleaners has its own special field. The cleaners are **user-friendly and environmentally compatible**, for manual applications and ready for use – easy to handle.

### New Fresh Air

- ▶ Water-based, alkaline
- ▶ Odours are eliminated by microorganisms\*
- ▶ Eliminates rubbish-, flooding-, burnt-, nicotine- and restroom smells, etc.



**A50071** 500 ml PET bottle with trigger

PU: 20 x 500 ml (1 box)

**A00571** 5 L jerrycan

**A02071** 20 L jerrycan

### Urine Attack

- ▶ Water-based, pH-neutral cleaner for use around the WC
- ▶ Penetrates the joints and reliably degrades urine
- ▶ Long-term effect through microorganisms\*



**A50039** 500 ml bottle with trigger

PU: 20 x 500 ml (1 box)

**A00139** 1000 ml plastic bottle

PU: 12 x 1000 ml (1 box)

**A02039** 20 L jerrycan

### Limescale Barracuda

- ▶ Water-based, acidic bathroom cleaner with well-adhering activated foam
- ▶ Universally applicable for all kinds of sanitary facilities
- ▶ Removes limescale, mineral deposits, urine scale, water stains, rust, soap residues, and teat tinting, from stainless steel, steel, tiles, aluminium, plastics, varnished and zinc-coated surfaces
- ▶ For use in sanitary facilities, saunas, public pools et al.



**A50002** 500 ml PET bottle with trigger

PU: 20 x 500 ml (1 box)

**A01002** 10 L jerrycan

**A02002** 20 L jerrycan

**A20002** 200 L plastic drum

**Please note:**  
Not suitable for  
marble or limestone!

**Tip:**  
Removes white rust from  
zinc-coated surfaces!

### Hair Remover Drain-free

- ▶ Highly concentrated, liquid drain cleaner
- ▶ Fast-acting
- ▶ Removes hairs, soap residues, greases, etc. from waste traps, pipes and drains
- ▶ Can be used in hospitals, sanitary facilities, hotels, etc.



**A00106** 1000 ml plastic bottle

PU: 12 x 1000 ml (1 box)

**A01006** 10 L jerrycan

**A02006** 20 L jerrycan

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

\* The microorganisms used are non-pathogenic bacteria belonging to risk group 1 (classified in accordance with the Ordinance on Biological Substances BioStoffV 2000/54/EC, TRBA 466). Risk group 1 = No risk for human beings and vertebrate animals, according to the current state of the art.

# HAND CLEANING

## Clean and well-tended hands

No matter what work you do, and how dirty your hands are:  
Hand Cleaning Cream will get them clean again.

### Hand Cleaning Cream

- ▶ **FREE FROM MICROPLASTICS!**
- ▶ **For persistent contaminations**
- ▶ **To be used with water, like soap**
- ▶ **Biological abrasive substances obtained from corn facilitate thorough yet gentle cleaning**
- ▶ **Nurturing additives, dermatologically tested**
- ▶ **Also available with dosing pump and optional wall bracket**



<b>A25007-04</b> 250 mL tube PU: 12 x 250 mL (1 box)
<b>A00307-04</b> 3 L container for wall bracket
<b>A01007-04</b> 10 L jerrycan
<b>A00007-30</b> Hand Cleaning Cream starter kit consists of: 3 x 3 L container of Hand Cleaning Cream, 6 x 250 mL tube Hand Cleaning Cream, dosing pump, wall bracket (incl. mounting material),
<b>H00011</b> dosing pump incl. wall bracket for 3 L container

# CONVENIENT, FAST AND PRACTICAL

For quick manual surface cleaning in-between.

### Rubbel-Dubbel

- ▶ **Damp, perforated cleaning wipes**
- ▶ **For fast and thorough cleaning without water**
- ▶ **Lint-free, sturdy heavy-duty special wipe**
- ▶ **In a convenient dispenser pail**



<b>A00186</b> Dispenser pail with 90 wipes Wipes: 250 x 320 mm
---

**The Hand Cleaning Cream and the damp cleaning wipes remove** even dried-on oils, greases and adhesive residues, fresh paint and felt-tip stains, etc.

**FIELD OF USE:** all trade- and industry sectors, workshops, and the home- and hobby sector.



# CLEANING SYSTEMS

**„Helping people  
fall in love with their world  
is a catalyst to wanting to save it.”**

(Sebastian Copeland, polar explorer and environmental activist)



PROLAQ recirculation system

# SUSTAINABLE – EFFICIENT CLEANING IN THE INDUSTRY

## The right solution to every cleaning requirement

In most industry sectors, cleaning activities have become indispensable. In fields such as maintenance, plastic injection moulding, foodstuffs, transportation, traffic, logistics, automotive, CNC, the trades, energy, agricultural engineering or forestry, contaminations are a highly topical subject wherever you look. As manufacturers, our working focus is on meeting the continuously increasing requirements and on finding the best cleaning solution for our customers. Our cleaning products help every industrial company save time and maintain a high quality, or simplify and cost-optimize the process within the value chain. More than 80 % of our cleaner portfolio require no labelling under the CLP Regulation. Cleaning performance is extremely high, and the cleaners are very versatile. They are advocates for topics such as occupational health and safety, user-friendly and environmentally compatible applications, and for HAZMAT reduction in the companies.

# THE CLEANING SYSTEMS AT A GLANCE – MANUAL OR AUTOMATIC

MANUAL		
 <p><b>BIO-CIRCLE</b> Systems for natural, biological parts cleaning</p>	 <p><b>CLEAN BOX</b> The mobile solution in parts cleaning</p>	<p><b>Cleaners specifically developed for manual applications</b></p> <p><b>BIO-CIRCLE L range</b> <b>BIO-RUST F</b> <b>CB 100 range</b> <b>FOR CLEAN range</b> <b>FT range</b> <b>GS 200</b> <b>OMNI range</b> <b>PROLAQ L range</b> <b>UNO range</b> <b>and many more</b></p>
 <p><b>PROLAQ</b> For cleaning painting tools and spray guns</p>	 <p><b>BIO-CIRCLE HP</b> The parts washer with the cleaning power of high-pressure cleaning</p>	
 <p><b>HP Vigo</b> Manual high-pressure cleaning for every need</p>	 <p><b>AUTRASYS</b> Cleaner application system for medium-sized and large surfaces</p>	

AUTOMATIC		
 <p><b>RWR</b> Cleaning system for pipes, heat exchangers and temperature control units</p>	 <p><b>HTW</b> Sturdy, fully automatic hot-water parts washers</p>	<p><b>Cleaners specifically developed for use in automatic systems</b></p> <p><b>ALUSTAR range</b> <b>BIO-CIRCLE L Turbo</b> <b>BIO-RUST F</b> <b>CB 100 range</b> <b>Corrosion protection for water-based systems</b> <b>Power Cleaner 150</b> <b>Power Cleaner 400</b> <b>Power Cleaner DB</b> <b>Power Cleaner KST 2.0</b> <b>Smoke Resin Remover DB</b> <b>Smoke Resin Remover, foamless</b> <b>STAR range</b> <b>STAR US range</b> <b>and many more</b></p>
 <p><b>US - BC Sonic</b> Effective and gentle ultrasonic cleaning</p>	 <p><b>BIO-CIRCLE Turbo</b> 2 in 1 – automatic and manual cleaning</p>	
 <p><b>PPT</b> Parallel Plate Separator</p>	 <p><b>PROLAQ Auto</b> For automatic and manual cleaning of painting tools and spray guns</p>	

# BIO-CIRCLE PARTS WASHING SYSTEMS

## The parts cleaning pros

Natural, biological parts cleaning – The Bio-Circle parts washers are available in two versions, as BIO-CIRCLE GT Compact and BIO-CIRCLE GT Maxi. Thanks to their easy handling, to the fast, safe and eco-friendly cleaning also of extremely contaminated parts, and to the use of water-based cleaners with microorganisms these parts washers are parts washing pros. The stable devices are made of synthetic material (PE) and are recyclable, the VOC-free Liquids have long service lives, and maintenance is easy and simple, as the control box contains the entire technology (electronics, heating, float switch, and temperature sensor). **The BIO-CIRCLE systems operate without solvents, and they are an excellent alternative to conventional cold-cleaner parts washers. By using them you are making an active contribution to your employees' occupational health and safety and to environmental protection.**

## BIO-CIRCLE GT Compact and BIO-CIRCLE GT Maxi

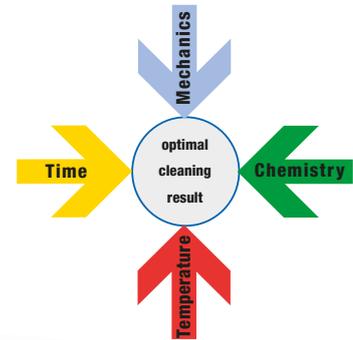
Difference between the two devices: size and payload

- ▶ 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)
- ▶ Easy handling of the liquid pump by means of a push-button switch
- ▶ The hinged upper section ensures easy servicing, maintenance and repair
- ▶ Control box with easier access to the components
- ▶ Filter system in the basin drain (coarse-, fine- and bag filter plus magnet)
- ▶ 8 years of BIO-CIRCLE Device Protection especially for parts washers with brushes
- ▶ Minimization of employee exposure and HAZMAT reduction
- ▶ Protection of man and environment



**RECOMMENDED CLEANERS FOR BOTH DEVICES:**

		Page
<b>BIO-CIRCLE L</b>	Cleaner with natural microorganisms. Optimally adjusted to most standard cleaning processes. Compatible with oil separators.	78
<b>Liquid EVO</b>	Low-foaming cleaner with microorganisms, for manual and automatic cleaning, ideal cleaning temperature: 45 °C	79
<b>BIO-CIRCLE L Aluminium</b>	Aluminium cleaner with natural microorganisms. For the gently cleaning of aluminium and non-ferrous metals.	78
<b>BIO-CIRCLE L Ultra</b>	Ultra-strong cleaner with natural microorganisms. Removes tenacious contaminations, such as bitumen, anti-rust waxes, burnt-in greases and oils, carbon deposits, and paint.	78



**BIO-CIRCLE Service**

	<b>BIO-CIRCLE GT Compact</b>	<b>BIO-CIRCLE GT Maxi</b>
Dimensions (H x W x D)	1060 x 830 x 600 mm	(front) 1015/(back) 1110 x 980 x 705 mm
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 no.	<b>G50030</b>	<b>G60030</b>

# BIO-CIRCLE BLUE – THE COOL ONES

## Parts cleaning at ambient temperature

Resource-efficient and sustainable cleaning at ambient temperature. The BIO-CIRCLE Blue parts washers facilitate maximum cleaning performance with low energy consumption. The parts washers and the BIO-CIRCLE L Blue and CB 100 Blue cleaners 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. 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.



## Clean Blue by Bio-Circle

### Clean Blue stands for:

- ▶ **Cleaning without solvents, benzines, cold cleaners, etc.**
- ▶ **Cost savings**
- ▶ **Environmentally compatible cleaning, a minimum of waste**
- ▶ **High energy efficiency**
- ▶ **Maximum cleaning performance**

	<b>BIO-CIRCLE GT Compact Blue</b>	<b>BIO-CIRCLE GT Maxi Blue</b>
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 no.	<b>G50040</b>	<b>G60040</b>





## BIO-CIRCLE GT Maxi Blue and BIO-CIRCLE GT Compact Blue

- ▶ Water-based cleaning with natural microorganisms
- ▶ 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

### RECOMMENDED CLEANERS FOR BOTH DEVICES:

	Page
<b>BIO-CIRCLE L Blue</b> The optimal cleaner and degreaser with natural microorganisms specifically designed for use in the BIO-CIRCLE GT Blue.	79
<b>CB 100 Blue</b> Nature Boost cleaner for removing persistent contaminations specifically designed for use in the BIO-CIRCLE GT Blue. <b>FIELD OF USE:</b> Suited for use in maintenance, production, parts cleaning, service, and all sectors of the industry.	43

# STAINLESS-STEEL TOP PIECE FOR BIO-CIRCLE GT MAXI

The stainless-steel top piece for the **BIO-CIRCLE GT 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 surface protection are available as an optional extra.



<b>G60030-18-01</b>	BIO-CIRCLE GT Maxi with stainless-steel top piece	payload 250 kg, 1500 x 950 x 300 mm
<b>G60030-17-01</b>	BIO-CIRCLE GT Maxi with stainless-steel top piece with base frame	payload 500 kg, 1504 x 1004 x 300 mm
<b>G60030-19-01</b>	BIO-CIRCLE GT Maxi with stainless-steel top piece with base frame	payload 1000 kg, 1504 x 1004 x 300 mm

# GREEN AND SWIFT

## BIO-CIRCLE equipment and accessories

We provide you with the right original accessories for every BIO-CIRCLE device. From lid to protective bottom, from Mobility Kit to angled brush: the perfect all-round package for your BIO-CIRCLE.



### 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 models



### Lid

Protects from contamination and reduces evaporation of cleaning fluid.

**G50327** for BIO-CIRCLE GT Compact

**G60330** for BIO-CIRCLE GT Maxi



### Protective bottom

Facilitates tilt-free work and protects the basin from sharp-edged parts.

Protective bottom made of perforated stainless-steel sheet metal

**G50326** for BIO-CIRCLE GT Compact

**G60230** for BIO-CIRCLE GT Maxi

Protective bottom made of plastic, black

**G50330** for BIO-CIRCLE GT Compact

**G60230-01** for BIO-CIRCLE GT Maxi



### Filters

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

PU: 6 pcs.

**G22826** Coil cartridge filter 200 µm

PU: 6 pcs.



### Aerator

**G484340** 3D Air-Booster incl. hose

**G484340-01** 3D Air-Booster



### 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



### 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



# BIO-CIRCLE LIQUIDS



## Parts cleaning at its best

**CLEANING AT A HIGH LEVEL: EASY, FAST, SAFE.**

The water-based, alkaline BIO-CIRCLE Liquids are solvent-free and non-labelled, and feature a fantastic cleaning activity. They are a user-friendly and environmentally compatible alternative to solvents. Using them means more occupational health and safety and reduced operating costs; a win-win situation for users and entrepreneurs. The BIO-CIRCLE-Liquids, which are used in combination with the BIO-CIRCLE parts washers, contain microorganisms\* that degrade the removed oil, hence guaranteeing long bath lives. Cleaning results remain at a constantly high level, even with increased dirt ingress.

The BIO-CIRCLE Liquids are ready for use and provide temporary corrosion protection; the ideal cleaning temperature is 41 °C/105.8 °F.

## BIO-CIRCLE L



- ▶ Universally applicable, the versatile one among the BIO-CIRCLE Liquids
- ▶ Suitable for the food industry
- ▶ Dermatologically tested

<b>A02026</b> 20 L jerrycan
<b>A20026</b> 200 L drum
<b>A10026</b> 1000 L IBC

## BIO-CIRCLE L Ultra



- ▶ Removes persistent contaminations
- ▶ Suitable for the food industry

<b>A02072</b> 20 L jerrycan
<b>A20072</b> 200 L drum
<b>A10072</b> 1000 L IBC

## BIO-CIRCLE L Heavy Duty



- ▶ Ideal cleaning temperature: 45 °C/113 °F, i.e. increased cleaning activity

<b>A02098</b> 20 L jerrycan
<b>A20098</b> 200 L drum
<b>A10098</b> 1000 L IBC

## BIO-CIRCLE L Aluminium



- ▶ Especially for the cleaning of sensitive materials, such as aluminium, non-ferrous metals, and zinc-coated surfaces
- ▶ Special aluminium formula for heat-tinting protection

<b>A02099</b> 20 L jerrycan
<b>A20099</b> 200 L drum
<b>A10099</b> 1000 L IBC

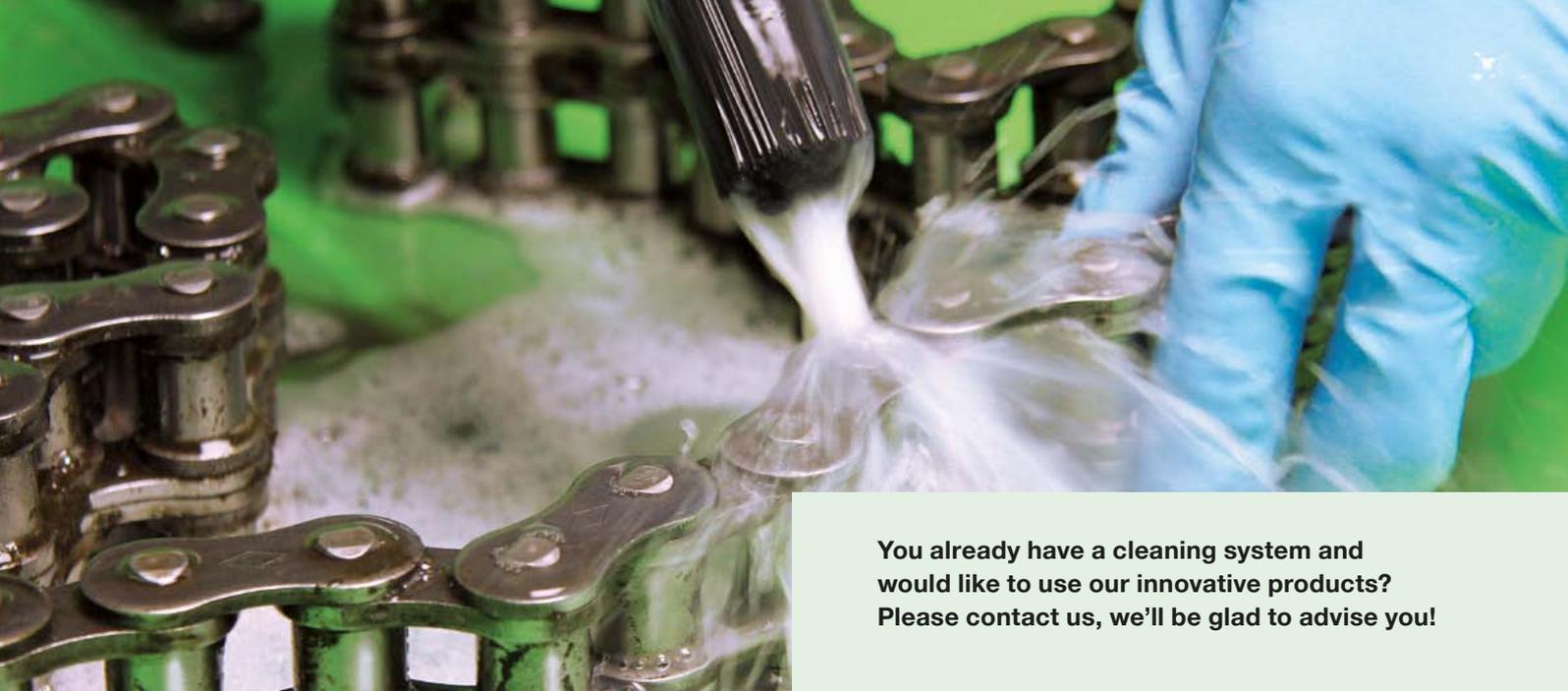
## BIO-CIRCLE L Turbo



- ▶ Low-foaming machine cleaner for automatic parts washers (BIO-CIRCLE Turbo, HTW, BIO-CIRCLE HP and HP Vigo)
- ▶ Ideal cleaning temperature: 50 °C/122 °F

<b>A02082</b> 20 L jerrycan
<b>A20082</b> 200 L drum
<b>A10082</b> 1000 L IBC

\* The microorganisms used are non-pathogenic bacteria belonging to risk group 1 (classified in accordance with the Ordinance on Biological Substances BioStoffV 2000/54/EC, TRBA 466). Risk group 1 = No risk for human beings and vertebrate animals, according to the current state of the art.



You already have a cleaning system and would like to use our innovative products? Please contact us, we'll be glad to advise you!

## Liquid EVO

**NEW!**

- ▶ For medium to heavy contaminations
- ▶ Environmentally friendly and safe
- ▶ For manual and mechanical use:
  - in BIO-CIRCLE parts washers with brush, parts washing machines and high-pressure parts washers
- ▶ Cleans virtually all materials:
  - aluminium, zinc-plated surfaces and non-ferrous metals as well as steel/stainless steel and plastics (such as PE)



**VOC free!**

**A02093** 20 L jerrycan

**A20093** 200 L drum

**A10093** 1000 L IBC

## BIO-CIRCLE L Star

- ▶ Removes extremely persistent incrustations and carbonizations
- ▶ Low-foaming machine cleaner for automatic parts washers (BIO-CIRCLE Turbo, HTW, BIO-CIRCLE HP and HP Vigo)
- ▶ Ideal cleaning temperature: 50°C/122°F



**VOC free!**

**A02075** 20 L jerrycan

**A20075** 200 L drum

**A10075** 1000 L IBC

## BIO-CIRCLE L Blue

- ▶ For cleaning at ambient temperature



**VOC free!**

**A02090** 20 L jerrycan

**A20090** 200 L drum

**A10090** 1000 L IBC

The **BIO-CIRCLE Liquids** remove a variety of contaminations, depending on requirements and the cleaning system: grease, oil, separating agents, smoke residues, soot, wear particles, and swarf. In certain cases, also: burnt-in organic contaminations, rust, oxidation and heat tinting, bitumen and corrosion protection waxes.

**Material:** stainless steel, steel, tiles, plastics, varnished and zinc-coated surfaces. In certain cases, also: aluminium, non-ferrous metals.

**FIELD OF USE:** Maintenance of components, work pieces and motors.

Across all industries: automotive, foodstuffs, metal processing/CNC, railways, the trades.

# BIO-CIRCLE HP AND BIO-CIRCLE HP VIGO

## The power of high-pressure cleaning

Two closed washing chambers, with the BIO-CIRCLE HP simultaneously serving as a parts washer with brush (fulfilling this function with the lid open as well as closed). Both washing chambers operate with the power of high-pressure cleaning. They are recyclable and remove oils and greases from heavily contaminated steel-, stainless-steel-, plastics- and other parts with complex geometries.

Their only mission: Making work easier for the user! For the components will be beautifully clean and shiny, and the workflow is simple, fast, and safe (provided the recommended cleaners are used).

**FIELD OF USE:** Maintenance of components, work pieces and motors.  
Across all industries: automotive, metal processing/CNC, etc.

## BIO-CIRCLE HP

- ▶ Manual cleaning using a flow brush, with the lid open or closed
- ▶ Cleaning temperature 45 °C / 113 °F
- ▶ The insulated tank prevents heat loss
- ▶ Working pressure of 10 – 80 bar, optimal handling by means of a high-pressure pistol
- ▶ Payload up to 350 kg
- ▶ Facilitates crane loading
- ▶ Integrated oxygen supply
- ▶ Significantly longer bath service life thanks to microorganisms
- ▶ Enhanced occupational health and safety, reduced operating costs
- ▶ Rotary table for manual operation as an optional extra



	BIO-CIRCLE HP
Overall width x overall depth	1150 x 1229 mm
Height with loading hatch closed/open	1800/2430 mm
Feeding height top edge washing chamber	1083 – 1228 mm
Overall width of available surface W x D x H	860 x 580 x 480 mm
Maximum payload	350 kg
Cleaning liquid tank – capacity	100 L
Total weight of the cleaning device (kg) excl. tank filling, payload and supplementary equipment	190 kg
Connected value total (kW) excl. supplementary equipment approx.	2.5 kW
Power supply/frequency	230 V/50 Hz
Compressed-air hose Ø 10 mm	max. 6 bar
Spray pressure adjustable approx.	10 – 80 bar
High-pressure pump	1.6 kW
Electric heating in the washing tank	0.65 kW
Treatment temperature (guide value)	45 °C / 113 °F
Order no.	<b>G30028</b>





RECOMMENDED CLEANERS FOR BOTH DEVICES:		Page
<b>Liquid EVO</b>	Low-foaming cleaner with microorganisms, for manual and automatic cleaning, ideal cleaning temperature: 45 °C	79
<b>BIO-CIRCLE L Star</b>	Low-foaming machine cleaner for automatic parts cleaning machines, removes even the strongest incrustations and scales; ideal cleaning temperature: 45 °C	79
<b>CB 100</b>	Suitable for the food industry	42

## HP Vigo

- ▶ Manual cleaning with lid closed
- ▶ Cleaning temperature adjustable up to 45 °C
- ▶ Operating pressure adjustable up to 80 bar, optimum handling via a high-pressure nozzle
- ▶ Compressed-air pistol for drying the parts
- ▶ Payload up to 150 kg
- ▶ Integrated oxygen supply
- ▶ Significantly longer bath service life due to microorganisms
- ▶ Switching off at low level via a float switch (protection of the heating element and pump)
- ▶ Optimal low-foaming cleaners and degreasers:
- ▶ BIO-CIRCLE L Star, Liquid EVO and CB 100
- ▶ VOC- and label-free
- ▶ Increase of occupational safety, reduction of operating costs



ROSTFREI  
Edelstahl

	HP Vigo
Overall width	1443 mm
Height with the device lid closed/open	1574 mm/1927 mm
Feeding height (top edge washing chamber) max./min.	954 mm/1031 mm
Overall width of available surface W x D x H	1157 x 768 x 520 mm
Maximum payload (crane loading is possible with the cleaning system!)	150 kg
Cleaning liquid tank – capacity	90 l
Total weight of the cleaning device (empty)	195 kg
Voltage, frequency, total output	230 V, 50 Hz, 2 kW
High-pressure pump	1,85 kW, 80 bar, 12,5 l/min
Working pressure (adjustable)	0 – 80 bar
Operating temperature (factory-set)	0 – 45 °C
Noise level	< 70 dB
Compressed air supply	Max. 6 bar
Maximum air consumption in pane cleaning	0,06 m <sup>3</sup> /h
Order no.	<b>G30027</b>



# BIO-CIRCLE TURBO

## 2 in 1 – automatic and manual cleaning

The perfect combination of the precision of manual cleaning and the efficiency of the automatic cleaning system. In the manual mode, the flow-through brush can be used for the cleaning of nooks and crannies that are difficult to reach. In the automatic mode the system cleans fully automatically.

**FIELD OF USE:** Maintenance of components, work pieces and motors.

Across all industries:

automotive, metal processing/CNC, etc.

RECOMMENDED CLEANERS		Page
<b>BIO-CIRCLE L Turbo</b>	Low-foaming machine cleaner for automatic parts washers Ideal cleaning temperature: 50 °C/122 °F	79
<b>BIO-CIRCLE L Star</b>	Low-foaming machine cleaner for automatic parts washers, removes extremely persistent incrustations and carbonizations Ideal cleaning temperature: 50 °C/122 °F	79

## BIO-CIRCLE Turbo 800, 1000, 1200, 1500

- ▶ 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
- ▶ High spray pressure
- ▶ Precise manual cleaning by means of a flow-through 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



	BC Turbo 800	BC Turbo 1000	BC Turbo 1200	BC Turbo 1500
Overall width x overall depth (mm)	1170 x 1075	1320 x 1240	1563 x 1510	1965 x 1885
Height with lid closed/open with angled exhaust duct (mm)	1585/2035	1580/2200	1734/2380	1730/2780
Inner diameter of rack, approx. (mm)	775	975	1175	1495
Useful height max. (mm)	400	450	620	650
Payload max. (kg)	350	350	350	350
Cleaning liquid tank – capacity (L)	160	275	380	570
Total weight of the cleaning device (kg) excl. tank filling, payload and supplementary equipment (kg)	350	370	420	590
Connected value total (kW) excl. supplementary equipment approx. (kW)	7,5	9	9	21
Power supply – 3-phase current (V)/ frequency (Hz)	400/50	400/50	400/50	400/50
Compressed-air hose Ø 10 mm (bar)	max. 6	max. 6	max. 6	max. 4
Pump – automatic cleaning: flow rate (m³/h / delivery head m H <sub>2</sub> O)	12.0/38	12.0/38	12.0/38	14.4/45
Pump – manual cleaning: flow rate (m³/h / delivery head m H <sub>2</sub> O)	4.8/27	4.8/27	4.8/27	4.8/27
Electric heating in the washing tank (kW)	4.5	6	6	9
Treatment temperature (guide value) (°C/°F)	50+/-2 / 122 +/- 3,6	50+/-2 / 122 +/- 3,6	50+/-2 / 122 +/- 3,6	50+/-2 / 122 +/- 3,6
Order no.	<b>G40027</b>	<b>G42027</b>	<b>G43027</b>	<b>G45027</b>

# HTW

## Hot-water parts washers – sturdy and fully automatic

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.

**FIELD OF USE:** Maintenance of components, work pieces and motors.  
Across all industries: automotive, metal processing/CNC, etc.

### HTW-II 800, 1000, 1200, 1500

- ▶ Completely made from stainless steel, for mechanical cleaning in the acidic, neutral and alkaline range
- ▶ Power-actuated rotating rack with motor protection
- ▶ Compact design, easy handling
- ▶ High cleaning power
- ▶ Effective and economical
- ▶ Energy-efficient

### Bio HTW

With air feed to make the microorganisms\* work.

- ▶ Completely made from stainless steel, for mechanical cleaning in the acidic, neutral and alkaline range
- ▶ Power-actuated rotating rack with motor protection
- ▶ Compact design, easy handling
- ▶ Effective and economical
- ▶ Energy-efficient



**PLEASE NOTE THE HTW DEVICE PACKAGES OVERLEAF!**

	HTW-II 800	HTW- II 1000	HTW-II 1200	HTW-II 1500
Overall width x overall depth (mm)	1180 x 1145	1370 x 1210	1580 x 1505	2080 x 1681
Height with lid closed/open with angled exhaust duct (mm)	1361/1790	1524/2005	1580/2200	1840/2700
Inner diameter of rack, approx. (mm)	775	975	1175	1500
Useful height max. (mm)	350	450	650	750
Maximum payload (kg)	150	350	350	350
Cleaning liquid tank – capacity (L)	150	300	485	770
Total weight of the cleaning device (kg) excl. tank filling, payload and supplementary equipment (kg)	280	350	350	550
Connected value total (kW) excl. supplementary equipment approx.	6	8.5	11.5	21.5
Power supply – 3-phase current (V)/ frequency (Hz)	400/50	400/50	400/50	400/50
Pump – automatic cleaning: flow rate (m <sup>3</sup> /h/delivery head m H <sub>2</sub> O)	4.8/3.8	12.0/3.8	12.0/3.8	14.5/4.5
Electric heating in the washing tank (kW)	4,5	6	9	2 x 9
Treatment temperature (guide value) (°C/°F)	10-85+/-2 / 50 -185 +/- 3,6	10-85+/-2 / 50 -185 +/- 3,6	10-85+/-2 / 50 -185 +/- 3,6	10-85+/-2 / 50 -185 +/- 3,6
Order no.	<b>G12630B</b>	<b>G12640B</b>	<b>G12650B</b>	<b>G12650B</b>

\* The microorganisms used are non-pathogenic bacteria belonging to risk group 1 (classified in accordance with the Ordinance on Biological Substances BioStoffV 2000/54/EC, TRBA 466). Risk group 1 = No risk for human beings and vertebrate animals, according to the current state of the art.

# HTW DEVICE PACKAGES

Technological optimization in packages

- ▶ HTW 800 (standard payload of 350 kg)
- ▶ Increased stability and enhanced look thanks to altered metalworking (edges instead of metal sheets)
- ▶ Standardized control cabinets
- ▶ More maintenance-friendly due to plugs on the pumps
- ▶ Optimized float switch position



## Basic HTW

**Basic**  
HTW 800, 1000, 1200, 1500

For the cleaning of standard parts

- ▶ Fan nozzles
- ▶ Digital temperature control

## Basic Eco HTW

**Basic Eco**  
HTW 800, 1000, 1200, 1500

For the cleaning of standard parts at higher temperatures  
Energy savings and noise reduction

- ▶ (Eco) insulation of the entire device body
- ▶ Fan nozzles
- ▶ Digital temperature control

## Bio HTW

**Bio**  
HTW 800, 1000, 1200, 1500

For the cleaning of standard parts with BIO-CIRCLE L Star  
Energy savings and noise reduction

- ▶ (Eco) insulation of the entire device body
- ▶ Oxygen diaphragm compressor
- ▶ Fan nozzles
- ▶ Digital temperature control

RECOMMENDED CLEANERS FOR BIO HTW		Page
<b>BIO-CIRCLE L Turbo</b>	Low-foaming machine cleaner for automatic parts washers Ideal cleaning temperature: 50°C/122°F	79
<b>BIO-CIRCLE L Star</b>	Low-foaming machine cleaner for automatic parts washers, removes extremely persistent incrustations and carbonizations Ideal cleaning temperature: 50°C/122°F	79

RECOMMENDED CLEANERS FOR HTW		Page
<b>CB 100</b>	Suitable for the food industry	42
<b>CB 100 LR</b>	Low-residue	42
<b>CB 100 Alu LR</b>	for sensitive materials such as aluminium; low-residue	42
<b>CB 100 Alu</b>	Special aluminium formula for heat-tinting protection	43
<b>CB 100 Blue</b>	Low-temperature cleaner	43
<b>All cleaners from the STAR range</b>		56

## Flex HTW

### Flex

**HTW 800, 1000, 1200, 1500**

For the cleaning of parts of different sizes and shapes

- ▶ Fan nozzles
- ▶ Height-adjustable nozzle holder
- ▶ Digital temperature control
- ▶ Pressure control  
2.5 – 4 bar (all sizes)
- ▶ Vapour extraction
- ▶ Lid opening angle 80° (800, 1000, 1200 via gas spring, and 1500 via pneumatic cylinder)
- ▶ Rotary nozzle spray arm

## Flex Eco HTW

### Flex Eco

**HTW 800, 1000, 1200, 1500**

For the cleaning of parts of different sizes and shapes at different temperatures  
Energy savings and noise reduction

- ▶ (Eco) insulation of the entire device body
- ▶ Fan nozzles
- ▶ Height-adjustable nozzle holder
- ▶ Digital temperature control
- ▶ Pressure control  
2.5 – 4 bar (all sizes)
- ▶ Vapour extraction
- ▶ Lid opening angle 80° (800, 1000 via gas spring, and 1200, 1500 via pneumatic cylinder)
- ▶ Rotary nozzle spray arm

## Max Eco HTW

### Max Eco

**HTW 800, 1000, 1200, 1500**

For the cleaning of heavy and heavily contaminated parts with blind holes at different temperatures  
Energy savings and noise reduction

- ▶ (Eco) insulation of the entire device body
- ▶ Fan nozzles
- ▶ Air shower
- ▶ Height-adjustable nozzle holder for cleaning and air shower
- ▶ Digital temperature control
- ▶ Pressure control  
2.5 – 4 bar (all sizes)
- ▶ Vapour extraction
- ▶ Lid opening angle 80° (800, 1000 via gas spring, and 1200, 1500 via pneumatic cylinder)
- ▶ High payload (800 = 350 kg, and 1000, 1200, 1500 = 1000 kg)

# ULTRASONIC CLEANING DEVICES

## Riding the waves

Even hard cases with rigid surfaces and complex geometries are cleaned effectively with ultrasonic waves. Extremely persistent contaminations, such as dried-on oils and greases, paints and varnishes or rust, will be dissolved with the aid of the appropriate cleaner – even from the tiniest of bores, material pores, and orifices.

### FIELD OF USE:

Across all industries; maintenance of e.g. carburettors, filters, shafts, valves, pumps, motors, and components of any kind; small-part paint stripping and rust removal



## BC-Sonic 37

Available in 8 different device sizes.

- ▶ 37 kHz ultrasonic power
- ▶ For all common applications
- ▶ Capacities from 2.75 L to 90 L

## BC-Sonic 25/45

Available in 7 different device sizes (22 L to 215 L) and equipped with different frequencies:

- ▶ 25 kHz ultrasonic power – for rough pre-cleaning
- ▶ 45 kHz ultrasonic power – for gentle final cleaning
- ▶ Dynamic function – by switching phase shift and additional pulse on and off cleaning times are shortened and very persistent contaminations are dissolved
- ▶ Hinged lid for noise insulation and evaporation reduction as an optional extra
- ▶ Castors instead of feet

STAR US Cleaning s.p. 58	Aluminium	Zinc-coated surfaces	Non-ferrous metals	Brass	Stainless steel	Steel	Plastics	Alkali-resistant surfaces	Acid-resistant surfaces
	STAR US 1	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	-
STAR US 6	X	X	X	X	X	X	X	X	-

RECOMMENDED CLEANERS:		Page
<b>PROLAQ US</b>	Paint stripper for the cleaning of complex geometries, thermally stable up to 80 °C/176 °F	42
<b>BIO-RUST F</b>	Water-based, pH-neutral cleaner and rust remover, low-foaming, free of halogens	42
<b>STAR US range</b>		42

Ultrasonic Cleaning Devices BC Sonic 37								
Capacity (L)	2,75	5,75	9,5	12,75	18	28	45	90
Internal size of basin W/D/H (mm)	198/106/50	255/115/75	255/200/80	250/190/115	280/250/115	455/250/115	455/270/194	545/450/520
Overall size of device W/D/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 no.	<b>G13915</b>	<b>G13925</b>	<b>G13935</b>	<b>G13945</b>	<b>G13910</b>	<b>G13920</b>	<b>G13930</b>	<b>G13940</b>

Multifrequency Devices BC Sonic 25/45							
Capacity (L)	22	42	45	70	97	133	215
Internal size of basin W/D/H (mm)	255/230/170	255/230/370	400/255/220	400/255/370	490/525/210	480/525/300	630/575/370
Overall size of device W/D/H (mm)	500/550/936	500/550/936	670/580/936	670/580/936	885/850/936	885/850/936	1035/900/936
Power consumption (W)	1400	1400	1400	4200	5000	7500	7500
Order no.	<b>G24022</b>	<b>G24042</b>	<b>G24045</b>	<b>G24070</b>	<b>G24097</b>	<b>G24133</b>	<b>G24215</b>

# PARALLEL PLATE SEPARATOR

## Recirculation- and resource-friendly service life extension

The Parallel Plate Separator (PPT) is a 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. At the same time, employees are protected from odour nuisances and contaminations because uninhibited bacteria growth is prevented. The PPT operates on the basis of the combined effect of gravitation and coalescence, without use of chemical additives. Thanks to this combined effect, very low secondary-phase residual concentrations can be achieved at the drain without any further secondary treatment. Simultaneously, the gravitational effect in the PPT guides solids to the bottom of the device.

- ▶ **Recirculation- and resource-friendly**
- ▶ **High separation efficiency**
- ▶ **Minimization of disposal costs**

**FIELD OF USE:** Universally applicable on cold and warm process baths and in pH ranges from 1 to 14.



### Extraction devices



Thuringia design



Hilti design



Trade fair design



HTW design

	<b>PPT Mini</b>	<b>PPT Kompakt</b>	<b>PPT 001</b>	<b>PPT 002</b>	<b>PPT 003</b>
Overall dimensions L x W x H (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
Power consumption	Up to approx. 2.5 m3/h				
Operating temperature	Up to 90 °C/194 °F				
Operating pressure	Any desired				
Material	Stainless steel 1.4301				
Order no.	<b>G11900</b>	<b>G11940</b>	<b>G11910</b>	<b>G11920</b>	<b>G11930</b>

# 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, cooling units, and temperature control units. The RWR has been specifically developed for these cleaning tasks.

**FIELD OF USE:** Plant maintenance, across all industries

### RWR 80 L, RWR 300 L, RWR 500 L

- ▶ Stainless-steel fluid vessel with integrated drain
- ▶ Stainless-steel heating with adjustable thermostat (up to 90°C/194°F), factory-set at an optimal 60°C/140°F
- ▶ Stainless-steel float switch for filling level monitoring, prevents pump and heating from running dry
- ▶ 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
- ▶ Mobile system – mounted on a stainless-steel trolley with rubber-clad castors
- ▶ Easy handling, no dismantling of components required



<b>RECOMMENDED CLEANERS:</b>		Page
<b>Power Cleaner DB</b>	Especially for mechanical applications in the RWR, removes contaminations such as urine scale, limescale, and corrosion, with simultaneous antibacterial effect	53
<b>Smoke Resin Remover DB</b>	Ready-to-use intensive cleaner for mechanical applications, especially for pipe- and heat exchanger cleaning devices, removes greases, oils, and oil carbon.	61



	<b>RWR 80 L</b>	<b>RWR 300 L</b>	<b>RWR 500 L</b>
Dimensions (W x D x H in mm) approx.	990 x 800 x 1200	1100 x 800 x 1500	1385 x 2350 x 1200
Washing liquid tank – contents (L)	80	300	700
Effective volume approx. (L)	60	200	500
Total weight of the system without tank filling, payload and additional equipment (kg)	130	170	450
Total electrical connected load approx. (kW)	4.6	15	18.5
Power supply 3-phase current (V)/frequency (Hz)/Ampere (A)	400/50/16 CEE 5 p 6 h	400/50/32 CEE 5 p 6 h	400/50/32 CEE 5 p 6 h
Ball valve for draining the washing liquid tank (inch)	1 1/2	1 1/2	1 1/2
Pump (m <sup>3</sup> /h/kW)	4.8/0.55	12.6/3.0	12.6/3.0
Electric heating in the washing tank (kW)	4.5	2 x 6	2 x 7.5
Treatment temperature (guide value) (°C/°F)	60	60	60
Order no.	<b>G29000</b>	<b>G29200</b>	<b>G29400</b>

# 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 2.0 is pumped through the tool.**

**FIELD OF USE:** Plant maintenance, across all industries

### RWR-80 L KST Manual, RWR-80 L KST Dual Automatic, RWR-80 L KST Fully Automatic SPS,

- ▶ **Stainless-steel 80 L fluid vessel with integrated drain and stainless-steel heating with adjustable thermostat – factory-set at an optimal 60 °C/140 °F**
- ▶ **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 Fully Automatic SPS: Easy operation due to the PLC, which controls the automatic process.**

	<b>RWR-80 L KST Manuall</b>	<b>RWR-80 L KST Dual Automatic</b>	<b>RWR-80 L KST Fully Automatikk SPS</b>
Dimensions (W x D x H in mm) approx.	1215 x 780 x 990	1515 x 780 x 990	1215 x 820 x 1285
Washing liquid tank – contents (L)	80	80	80
Effective volume approx. (L)	60	60	60
Total weight of the system without tank filling, payload and additional equipment (kg)	110	130	180
Total electrical connected load approx. (kW)	4.5	5.1	4.5
Power supply 3-phase current (V)/frequency (Hz)/Ampere (A)	400/50/16 CEE 5 p 6 h	400/50/16 CEE 5 p 6 h	400/50/16 CEE 5 p 6 h
Ball valve for draining the washing liquid tank (inch")	1 1/2	1 1/2	1 1/2
Compressed air membrane pump (L/min)	0 – 56	0 – 56	0 – 56
Centrifugal pump (L/min / kW)	-	50 / 0,55	-
Electric heating in the washing tank (kW)	4.5	4.5	4.5
Treatment temperature (guide value) (°C)	60	60	20 – 60 with STB
Compressed-air hose Ø10 mm (bar)	max. 6	max. 6	max. 6
Order no.	<b>G29027</b>	<b>G29024</b>	<b>G2980-SPS</b>



**RECOMMENDED CLEANERS:**

Page

<b>Power Cleaner KST 2.0</b>	Water-based acidic cleaner, ready for use, especially for mechanical applications in the RWR KST, for the removal of limescale and corrosion	53
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<b>Corrosion protection for water-based systems</b>		
Low-foaming, amine-based, optimal for steel-, iron-, and casting materials.		
Application AFTER the cleaning process:		
Mix corrosion protection with water, and flush the device.		
		54



RWR KST-80 L Dual Automatic



RWR KST-80 L Fully Automatic



RWR-80 L KST Manual	RWR-80 L KST Dual Automatic	RWR-80 L KST Fully Automatic SPS
<ul style="list-style-type: none"> <li>- Digital flow meter</li> <li>- Compressed air bypass</li> <li>- Manual change of flow direction</li> <li>- Integrated flushing device for corrosion protection</li> </ul>	<ul style="list-style-type: none"> <li>- Digital flow meter under constant pressure (centrifugal pump)</li> <li>- Compressed air bypass</li> <li>- Automatic change of flow direction</li> <li>- Integrated flushing device for corrosion protection</li> </ul>	<ul style="list-style-type: none"> <li>- Programmable logic control (PLC)</li> <li>- Readable via PLC display: temperature, flow measurement, cleaning time</li> <li>- Operating hours counter</li> <li>- Automatic change of flow direction</li> <li>- Integrated flushing device for corrosion protection</li> <li>- STB (safety temperature limiter of the heating)</li> <li>- Overall cladding of the device for sound level reduction/tank insulation</li> <li>- Constant compressed air supply</li> <li>- AODD pump for all processes</li> </ul>

# CLEAN BOX

## Efficient pre-cleaning

The different variants of the CLEAN BOX are effectively suited for the pre-cleaning of small and large parts, as well as extremely large and bulky workpieces. This makes them suitable for use in many factory and production areas, such as maintenance, machine construction or industrial engineering. The CLEAN BOXes are characterised by their easy handling and the use of low-temperature cleaners.

The use of CLEAN BOX systems protects the environment and the health of employees. For example, each CLEAN BOX Max (1 and 2) and CLEAN BOX Flex contains a circulation system that facilitates a long service life of the cleaner. The cleaning fluid is conveyed through the brush by a feed pump and then flows back into the tank.

### Suited for use with water-based acidic and alkaline cleaners:

With the portable CLEAN BOX, the parts can be lifted out with the help of the immersion basket, the fluid remains in the Box.

## CLEAN BOX

- ▶ Stackable and space-saving
- ▶ Suitable for transport due to handles
- ▶ Optional: immersion basket
- ▶ Optional: lid (protection against odour or evaporation)

## CLEAN BOX Mobil

- ▶ Extended by a trolley
- ▶ Can be rolled to the place of work



		CLEAN BOX	CLEAN BOX Mobil
<b>Immersion box</b>	External dimensions W x D x H	600 x 400 x 300 mm	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	approx. 50 L	approx. 50 L
<b>Immersion basket</b>	External dimensions W x D x H	600 x 400 x 300 mm	600 x 400 x 300 mm
	Material	bottom and sides perforated with HDPE handle openings, green	bottom and sides perforated with HDPE handle openings, green
<b>Lid</b>	External dimensions W x D x H	600 x 400 mm	600 x 400 mm
	Material	made of HDPE, green	made of HDPE, green
<b>Trolley</b>	External dimensions W x D x H	-	620 x 420 x 155 mm
	Material	-	ABS frame (black) with A castors (white), ø 100 mm with locking brake
	Maximum payload (kg)	-	250 kg
<b>Order no.</b>		<b>H00040</b>	<b>H00042</b>



A shelved trolley is available as an alternative to the trolley.





The CLEAN BOX Flex can be extended in depth and/or width in 1200-mm steps.

Due to built-in pump only suitable for water-based alkaline cleaners:

## CLEAN BOX Max

- ▶ Big, bulky or complex parts can be positioned on the working platform and cleaned manually by means of the integrated flow nozzle with washing brush
- ▶ Cleaning platform available in two sizes (Max 1 and Max 2)
- ▶ With feed pump for cleaning agent
- ▶ Electro-pneumatic ON/OFF foot switch incl. control lamp

A flexible and modular system

## CLEAN BOX Flex

- ▶ Suited for big work pieces, with grid on the working platform
- ▶ Can be ordered in prefab sizes (1.2-m steps), with a feed pump for the cleaner
- ▶ With integrated drip tray in compliance with WHG (Water Resources Act) with leakage control, tank with lid
- ▶ Integrated flow nozzle with washing brush

	CLEAN BOX Max 1	CLEAN BOX Max 2	CLEAN BOX Flex
Overall dimensions L x W x H (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 L x W (mm)	1220 x 1220	2250 x 1220	variable
Material	PE	PE	PE-HD
Payload	1000 kg	1000 kg	1000 kg
Useful volume min./max.	200 L / 300 L	700 L / 1000 L	250 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 / 50 Hz	230 V/1.3 A / 50 Hz	230 V/1.3 A / 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 protection class	68	68	68

### Flow cleaning brushes for CLEAN BOX Max, Flex

- G15001-01** Flow brush, soft  
green/red
- G15001-02** Flow brush, hart  
green
- G15001-03** Flow hand brush, soft  
green
- G15001-04** Flow hand brush, hart  
blue
- G15001-05** Curved flow brush, soft  
green/red
- G15001-06** Curved flow brush, hart  
black

The devices need an appropriate connector.  
The brushes have 1/2" internal threads.

# PROLAQ

## Off with the varnish – extend your bath lives

### Eco-friendly cleaning of painting tools and spray guns!

The **PROLAQ cleaning systems** have been developed specifically for the cleaning of painting tools, such as spray guns or paint brushes. Removing varnish residues from the inside of hoses and from tools helps avoid sloppy spraying patterns or sagging. In this context, the PROLAQ Compact parts washer serves for manual paint removal, whereas the PROLAQ Auto can additionally clean the painting tools automatically. The integrated extraction device and the hood minimize odours effectively, thus guaranteeing a clean workplace. The devices are complemented by our spray gun cleaners, and the combination represents an effective system for removing varnishes, paints and printing inks that have not dried yet. **Instead of using conventional cellulose thinners, the PROLAQ systems work with HAZMAT-reduced cleaners that make the work more pleasant, make storage easier, and protect the environment.**

## PROLAQ Compact

### Manual cleaning system for all painting tools and spray guns

The mobile PROLAQ Compact offers the user a high degree of flexibility. It can be used to clean a vast range of varnishing tools, such as flow cup guns, nozzles, squeegees, clichés or tube-holding airless systems. The sturdy cleaning system is made of synthetic material (PE) and compressed-air driven; it is operated by means of a foot switch.

A high-quality flow brush guarantees perfect cleaning results. An additional compressed-air gun provides for fast drying of the cleaned parts.

- ▶ Compressed-air driven
- ▶ Integrated funnel
- ▶ Movable due to mobility kit
- ▶ High-quality flow brush, available in different hardness levels
- ▶ Splash guard lid (optional)



	<b>PROLAQ Compact</b>
Dimensions	H 980 at the front/1060 at the back x W 950 x D 600 mm
Working height	980/840 mm
Useful work surface	740 x 450 mm
Empty weight	approx. 50 kg
Payload	100 kg
Minimum capacity	40 L
Maximum capacity	100 L
Tank	Material PE LD
Air pressure	6 bar max.
Pump	Druckluftmembranpumpe PTFE Membran
Order no.	<b>G90010</b>

<b>RECOMMENDED CLEANERS:</b>		Page
<b>PROLAQ L 100</b>	Paint remover for dried water-based varnishes and paints	96
<b>PROLAQ L 400</b>	Paint remover for dried water- and solvent-based varnishes and paints with fast and virtually residue-free drying	96
<b>PROLAQ L 500</b>	Paint remover for dried water- and solvent-based varnishes and paints	97

## PROLAQ Auto

### Manual and automatic cleaning of all painting tools and spray guns

The PROLAQ Auto is a compact cleaning station for painting tools and spray guns. Cleaning in explosion-proof areas can be done both manually and automatically. Flow- and suction cup guns can be cleaned automatically. Afterwards, the cleaned guns can be blown dry by means of an air shower. The integrated extraction device and the hood minimize odours effectively, thus guaranteeing a clean workplace.

- ▶ **Manual and automatic cleaning also in explosion-proof areas**
- ▶ **Simultaneous automatic cleaning of two spray guns at a time**
- ▶ **For flow- and suction cup guns**
- ▶ **Subsequent air shower**
- ▶ **Option of manual cleaning by means of a flow brush**
- ▶ **Can be closed with a hood**
- ▶ **Integrated sedimentation- and filter unit**



	<b>PROLAQ Auto</b>
Dimensions (H x W x D)	857 x 508 x 1554 mm
Empty weight	94 kg
Capacity	60 L
Air pressure	5 bar
Pump: air consumption	58 L/min
output	12 L/min
Pump	AODD pump (PTFE diaphragm)
Automatic cleaning	14 nozzles cleans 2 spray guns
Noise level	< 70 db
Diameter exhaust pipe	76 mm
Order no.	<b>G90055</b>

# THE PROLAQ L RANGE

Make a choice – it's time for a change!

The unique PROLAQ Liquids are the alternative to cellulose thinner: **VOC-reduced and low-labelled varnish removers and paint strippers** for the removal of dried and hardened paints, varnishes, inks and printing inks.

**Recyclable. Reduced costs. Optimal cleaning performance.**

**User-friendly. Environmentally compatible.**

**Fewer protective measures, operating cost reductions, and a safe and healthy workplace.**

Systematic cleaning: The PROLAQ Liquids are ready for use and have been especially designed for use in the PROLAQ Compact and PROLAQ Auto cleaning systems, and in ultrasonic cleaning devices.

## PROLAQ L 100

- ▶ Paint remover for dried water-based varnishes and paints



**A50063** 500 ml PET bottle

**A02063** 20 L jerrycan

**A20063** 200 L plastic drum

**A10063** 1000 L IBC

Hazard warnings: Eye Irrit. 2

## PROLAQ L 400

- ▶ Paint remover for dried water- and solvent-based varnishes and paints
- ▶ Fast and virtually residue-free drying



**A50069** 500 ml PET bottle

**A02069** 20 L jerrycan

**A20069** 200 L plastic drum

**A10069** 1000 L IBC





## PROLAQ L 500

- Paint remover for dried water- and solvent-based varnishes and paints



<b>A50017</b> 500 ml PET bottle
<b>A02017</b> 20 L jerrycan
<b>A20017</b> 200 L plastic drum
<b>A10017</b> 1000 L IBC
Hazard warnings: Eye Irrit. 2

## PROLAQ L US

- Paint stripper for hardened varnishes and paints
- For use in the Ultrasonic Cleaning Device for cleaning complex geometries and minute bores and orifices
- Temperature-stable up to 80 °C/176 °F



<b>A00566</b> 5 L jerrycan
<b>A02066</b> 20 L jerrycan
<b>A20066</b> 200 L plastic drum
<b>A10066</b> 1000 L IBC
Hazard warnings: Eye Irrit. 2

**The PROLAQ Liquids dissolve dried and hardened paint, varnish, ink, printing ink, and pigmented ink.**  
**Material:** All painting tools and spray guns are cleaned, as well as stainless steel, steel, tiles and aluminium. In certain cases, also: non-ferrous metals and zinc-coated surfaces.

**FIELD OF USE:** across all industries, wherever paint and varnish are used, cleaning of spray guns, hoses, print rollers, stencils, et al. For manual and mechanical applications in the PROLAQ cleaning systems, in immersion baths, and in ultrasonic cleaning devices.



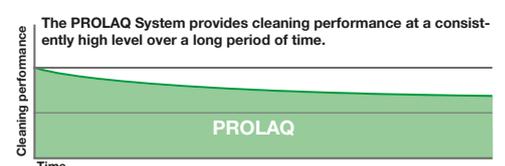
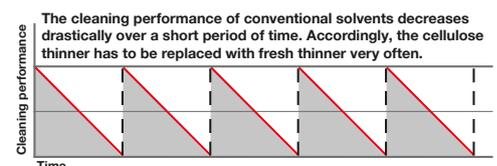
**Tip:**

The cleaners of the PROLAQ L range can also be used to dissolve rubber, sealing compounds, resins, and waxes. Pad printing ink is also efficiently removed from rubber (e.g. wheel tyres).



Hose system cleaning with PROLAQ Liquid

### PROLAQ FACILITATES CLEANING AT A CONSISTENTLY HIGH LEVEL



# PROLAQ ACCESSORIES

The extensive range of accessories is the perfect complement to the PROLAQ product range and guarantees fast and thorough cleaning results. The accessories can be ordered separately or together in a practical toolbox. The toolbox contains protective goggles, gloves, a cartridge filter, a pre-filter, and a gun cleaning kit.



## PROLAQ Toolbox

**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

PU: 12 pcs.



**G90010-05** PROLAQ gun cleaning kit,

17 pieces



**G90010-07** PROLAQ toolbox holder



**G90010-04** PROLAQ disposable gloves,

grey, size XL

PU: 50 pcs. (1 box)



## PROLAQ flow brushes

for PROLAQ Compact

**G90010-08** PROLAQ flow brush

**G90010-09** PROLAQ flow brush,

medium-hard



# VARIO SL COMPACT

## Very versatile in use

The parts washer for the removal of water-resistant contaminations (resins – especially epoxy resin, fibre-reinforced plastics, grease, oil, adhesives, and rubber). For the manual cleaning of working equipment, moulds, mixing devices, and other process-accompanying equipment in manufacturing.



- ▶ **Cleaning system with an employee- and eco-friendly concept**
- ▶ **Substitution of hazardous substances, increased occupational health and safety**
- ▶ **Reduction of VOC (such as acetone)**
- ▶ **Compact cleaning system – directly applicable in the production- or manufacturing process**

### Manufacturing/processing

of assemblies or parts on epoxy resin basis, GRP, and carbon, in the aerospace- and automotive industries, wind energy converter building, model construction, motorsports, sports equipment, and basin- and vessel construction.

### Processing and prefabrication

of adhesives and adhesive tapes.

### Food industry

For the removal of water-resistant greases and oils.

### Tyre- and rubber industry

For the removal of vulcanized and non-vulcanized rubber components.



	<b>VARIO SL Compact</b>
Dimensions	H at the back 1060/front 980 x W 840 x D 600 mm incl. filter housing
Working height	980/840 mm
Useful work surface	740 x 450 mm
Empty weight	approx. 50 kg
Payload	100 kg
Minimum capacity	40 L
Maximum capacity	60 L
Tank	Material PE LD
Air pressure	6 bar max.
Pump	AODD pump PTFE diaphragm
Order no.	<b>690030</b>

<b>RECOMMENDED CLEANERS:</b>	Page
<b>GS 200</b> Cleaner with excellent dissolving power on water-resistant contaminations	63
<b>OMNI</b> Multifunctional spray with excellent cleaning- and penetration effect, protects from corrosion	60



# PROTECTING LUBRICATING

**„The important thing is  
not to stop questioning.“**

(Albert Einstein, theoretical physicist and Nobel laureate)

# SURFACE PROTECTION

## Rust won't stand a chance

Rust develops from iron or steel through oxidation with oxygen in the presence of humid air or water. If the corroding process is not stopped, it will go on until the iron- or steel part is irreversibly weathered and damaged.

Our **products are ready for use** and provide **long-term corrosion protection** by means of oil or wax. Or the workpiece is coated, thus providing it with resilient, wear-resistant corrosion protection. **Choose the protection that offers the greatest benefit for your application.**

## High-Performance Anti-Rust Oil

- ▶ Liquid anti-corrosion oil
- ▶ Also suited for immersion processes
- ▶ Protects metals during storage, also outside of buildings
- ▶ Exceptionally high neutralizing capacity

### Corrosion tests:

- Test in the humidity chamber DIN 51 359
- Seawater immersion test DIN 51 358
- Hydrobromic acid immersion test DIN 51 357



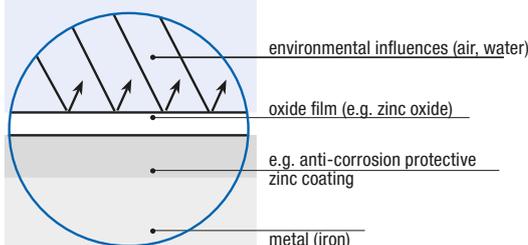
<b>B50013</b> 500 ml plastic bottle
PU: 20 x 500 ml (1 box)
<b>B02013</b> 20 L jerrycan

## High-Performance Anti-Rust Wax

- ▶ Flexible, transparent long-term corrosion protection film
- ▶ Protects from corrosion during open-air storage and transport
- ▶ Seawater-resistant
- ▶ 240-hour salt spray test

<b>B40011</b> 400 ml aerosol can
PU: 12 x 400 ml (1 box)
<b>B50011</b> 500 ml tin bottle
PU: 20 x 500 ml (1 box)
<b>B02011</b> 20 L jerrycan
<b>B20011</b> 200 L metal drum
Hazard warnings aerosol can: Aquatic Chronic 3, Aerosol 1, STOT SE 3

### Passivation of metals



## Stainless Steel Spray

- ▶ **Micro-fine stainless-steel powder: scratch-resistant, resistant to bending and impact-proof**
- ▶ **Universally applicable**
- ▶ **Heat-resistant protection up to 240 °C/464 °F**
- ▶ **Resistant to acids and alkalis**
- ▶ **Water-repellent**

## Zinc Paste

- ▶ **Elastic, wear-resistant corrosion protection**
- ▶ **May be employed on drinking water-carrying systems**
- ▶ **Fast-drying**
- ▶ **Resistant to aggressive environmental influences**
- ▶ **Zinc purity: 98.5 – 99.7 %**

## Zinc Spray

## Zinc Paste Silver

- ▶ **High-tech corrosion protection through aluminium- and zinc pigments**
- ▶ **Elastic, wear-resistant protective layer**
- ▶ **May be employed on drinking water-carrying systems (DVGW-approved [German Association of the Gas- and Water Sector])**
- ▶ **Zinc purity: 98.5 – 99.7 %**

## Zinc Spray Silver

**FIELD OF USE:** metal processing, the trades, automotive, long-term storage, open-air storage, overseas shipping, etc.

<b>B40004</b> 400 ml aerosol can
PU: 12 x 400 ml (1 box)
Hazard warnings: Eye Irrit. 2, Aerosol 3, STOT SE 3

<b>B50003</b> 500 g tin
PU: 12 x 500 g (1 box)
<b>B00103</b> 1 kg tin
PU: 12 x 1000 g (1 box)
<b>B01003</b> 10 kg tin pail
Hazard warnings: Aquatic Acute 1, Aquatic Chronic 1, Flam. Liq. 3

<b>B40007</b> 400 ml aerosol can
PU: 12 x 400 ml (1 box)
Discounts apply to purchases of
2 – 7 boxes, 8 – 24 boxes, 25 – 84 boxes
Hazard warnings: Aerosol 1, Aquatic Acute 1, Aquatic Chronic 1

<b>B50015</b> 500 g tin
PU: 12 x 500 g (1 box)
<b>B00115</b> 1 kg tin
PU: 12 x 1000 g (1 box)
<b>B01015</b> 10 kg tin pail
Hazard warnings: Aquatic Chronic 2, Asp. Tox. 1, Skin Irrit. 2, Flam. Liq. 3, STOT SE 3

<b>B40008</b> 400 ml aerosol can
PU: 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



# LUBRICANTS

## Smooth operations

Lubricants reduce friction between parts moving against or on one another. They are indispensable in the maintenance and care of tools and machines; moreover, they provide protection from high temperatures. **Lubricants make an essential contribution to machine productivity and hence to the entire manufacturing process.**

Our lubricants are ready for use and provide temporary corrosion protection. **They are all solvent-free and (almost all) non-labelled – environmentally compatible and safe to use.**

## Aqua-Form

- ▶ Water-based deforming wax with a high heat transfer coefficient
- ▶ Excellent tool cooling
- ▶ Contains no chlorinated paraffins
- ▶ Suitable for a variety of materials
- ▶ For deformation processes, such as bending, dilating and crimping of metal sheets and tubes



**C02018** 20 L jerrycan

**C20018** 200 L plastic drum

Hazard warnings: Skin Sens. 1

## Food Tech Oil

- ▶ Highly refined protective and maintenance oil
- ▶ Suitable for the food industry
- ▶ Temperature-resistant up to approx. 150°C/302°F
- ▶ Free from animal ingredients
- ▶ Applicable in the foodstuffs-, beverage- and pharmaceutical industry, in the catering trade, in hospitals, etc.



**C50001** 500 ml bottle with trigger

PU: 20 x 500 ml (1 box)

**C02001** 20 L jerrycan

## Anti-Seize

- ▶ High-performance lubricant paste
- ▶ Deposits in fissured and porous sliding surfaces
- ▶ Temperature-resistant up to 1200 °C/2192 °F, pressure-resistant up to 200 N/mm<sup>2</sup>
- ▶ Resistant to cold and hot water, oil, benzine, and to most acids and alkalis
- ▶ Abrasion-, flash-, and rinsing-proof
- ▶ Contains no copper, nickel, lead, sulphur, halogens or silicone
- ▶ Universally applicable



<b>C20002</b>	200 ml aerosol can incl. brush adapter PU: 12 x 200 ml (1 box)
<b>C25002</b>	250 g brush tin PU: 12 x 250 g (1 box)
<b>C40002</b>	400 ml aerosol can PU: 12 x 400 ml (1 box)
<b>C00102</b>	1 kg tin Hazard warnings: Aquatic Acute 1, Aquatic Chronic 3 Aerosol: Aquatic Acute 1, Aquatic Chronic 3, Aerosol 1

## Metal-free Anti-Seize

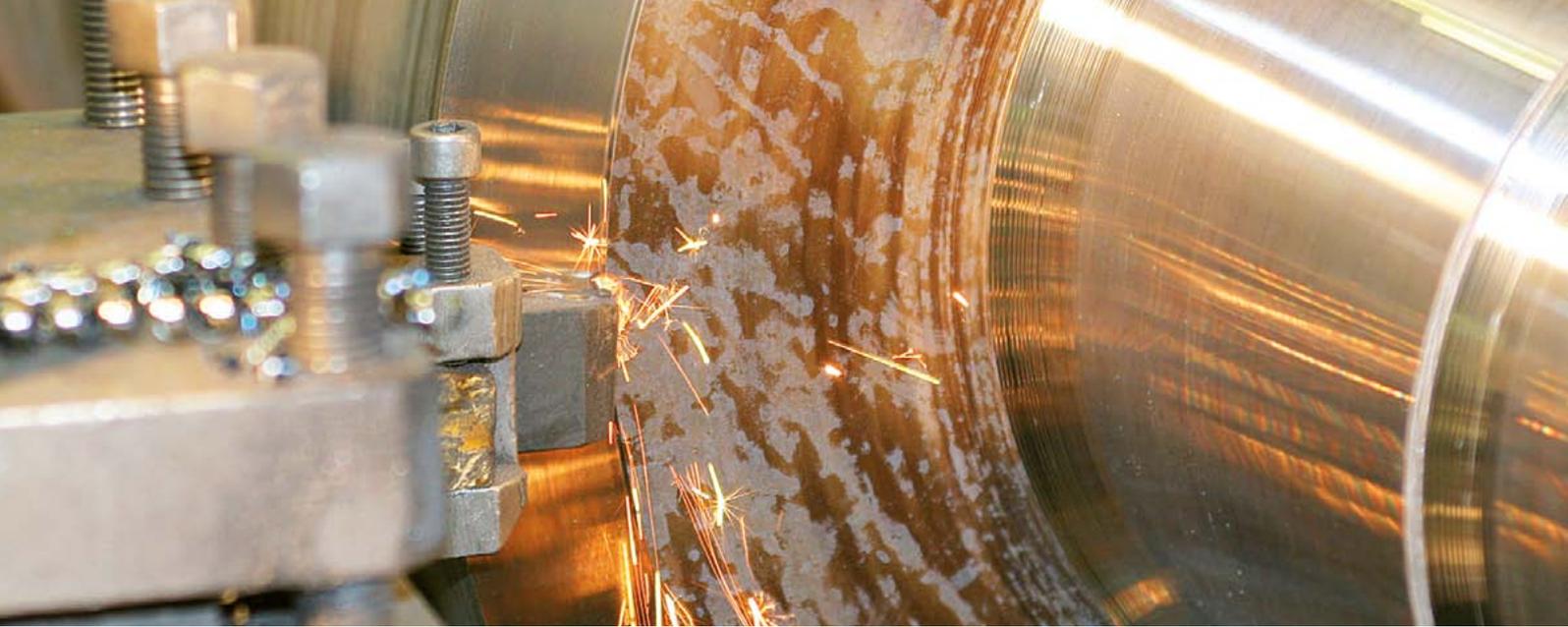
- ▶ Temperature-resistant up to 1400 °C/2552 °F
- ▶ Resistant to cold and hot water, oil, benzine, and to most acids and alkalis
- ▶ Pressure-resistant up to 220 N/mm<sup>2</sup>
- ▶ Can be used as a sealant for the correction of inaccuracies on flanges and flat gaskets
- ▶ Makes unfastening hot screws easier
- ▶ Universally applicable



<b>C25010</b>	250 g brush tin PU: 12 x 250 g (1 box)
<b>C00110</b>	1 kg tin

**Please note:**  
Do not use on oxygen systems  
and in the presence of acetylene!





## Cutting Coolant milky

- ▶ Water-miscible
- ▶ High cooling effect
- ▶ User-friendly: boron- and amine-free
- ▶ Good skin-friendliness: dermatologically tested
- ▶ Ideal for machining processes on iron, steel, aluminium, non-ferrous metals and alloys



<b>C02008</b> 20 L jerrycan
<b>C20008</b> 200 L metal drum
Hazard warnings: Aquatic Chronic 3,
Eye Irrit. 2

## High-Performance Cutting Oil

- ▶ Produced from high-purity paraffinic white oils
- ▶ Oil film can also be rinsed off with warm water
- ▶ Ideal for machining processes on steel, cast materials, aluminium- and non-ferrous metal alloys
- ▶ Suitable for the food industry



<b>C50004</b> 500 ml squeeze bottle
PU: 20 x 500 ml (1 box)
<b>C02004</b> 20 L jerrycan

Density at 15 °C/59 °F	0,89 g/ml
Viscosity at 40 °C/104 °F	35 mm <sup>2</sup> /s
Flash point	>100 °C/212 °F
Pour point	-20 °C/-4 °F



# WELDING

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

(Bio-Circle Surface Technology GmbH member of staff)

# E-WELD PREMIUM PRODUCTS

## #cohesion

The excellent wetting properties, **the fabulous separating effect**, the low consumption, and the stable consistency of the emulsions make the E-WELD products a must-have in welding applications.

**In addition, most of them are solvent-free and non-labelled, which increases occupational health and safety and reduces operating costs. Great benefits for the user and the entrepreneur.**

## RELEASE AGENTS FOR WELDING

### Optimal separating effect on weld spatter

**Spray it on. Weld. Wipe it off. Finished.**

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

### E-WELD 2

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



<b>D50002</b> 500 ml bottle with trigger PU: 20 x 500 ml (1 box)
<b>D02002</b> 20 L jerrycan
<b>D20002</b> 200 L plastic drum
<b>D10002</b> 1000 L IBC

### E-WELD 3

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



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

### E-WELD 4

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

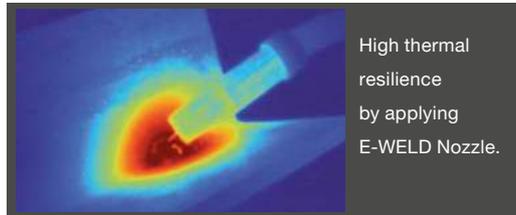


<b>D50012</b> 500 ml PET bottle with trigger PU: 20 x 500 ml (1 box)
<b>D02012</b> 20 L jerrycan
<b>D20012</b> 200 L plastic drum
<b>D10012</b> 1000 L IBC

# NOZZLE PROTECTION

## Full power

In welding, a clean nozzle is half the battle.



## E-WELD Gel

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



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

## E-WELD Nozzle

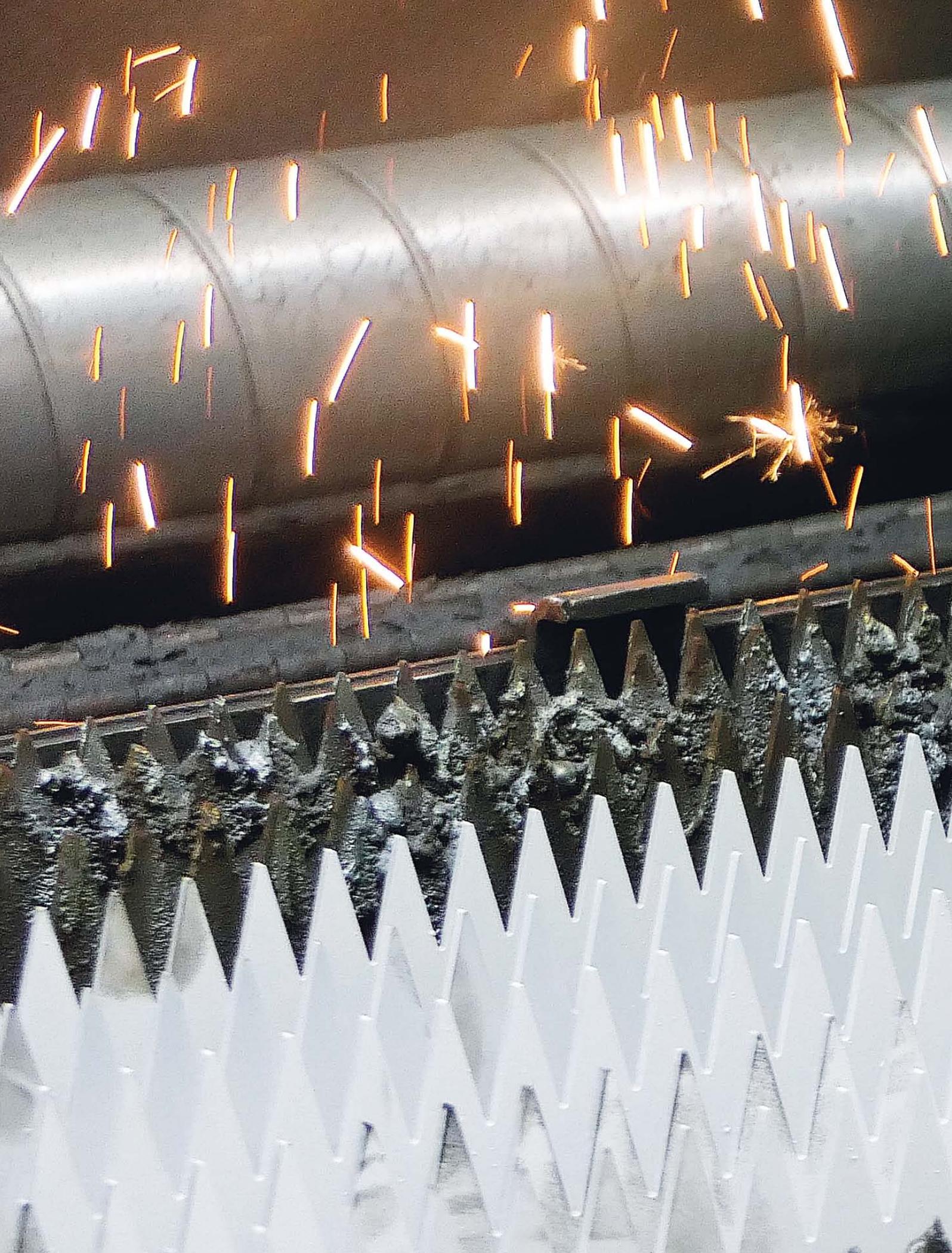
- ▶ High-performance nozzle protection in an aerosol can
- ▶ Ceramic protection that lasts up to 8 hours
- ▶ Dries within seconds
- ▶ Thermally stable up to 1000 °C/1832 °F
- ▶ Also ideal for current contact tubes, clamping devices, and laser- and plasma cutting machines
- ▶ Easy to apply with the Task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

<b>D40017</b> 400 ml aerosol can PU: 6 x 400 ml (1 box)
<b>H00036</b> Task Pro application system
<b>D00017-30</b> 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



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





# E-WELD SHIELD

## Innovative surface protection

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

## E-WELD Shield

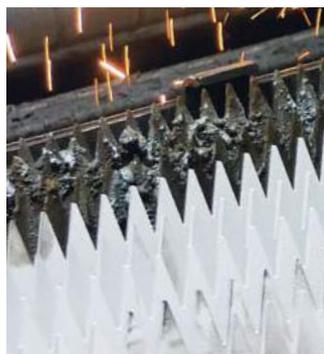
- ▶ Water-based compound with ceramic protection
- ▶ Surface protection for the bars of plasma- and laser-cutting machines
- ▶ Prevents major build-ups of slag
- ▶ Makes slag is easy to remove

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

## E-WELD Shield Spray Gun

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

- ▶ Easy handling
- ▶ Individual adjustment options for spray- and airflow rate = optimal exploitation of the release agent
- ▶ Environmentally compatible: compressed air as a propellant



E-WELD Shield 10 kg jerrycan  
Order no. D01116

E-WELD Shield Spray Gun  
Order no. HW0180



Pressure controller  
for E-WELD Shield Spray Gun  
Order no. HW0180-01



D01116 10 kg jerrycan

Hazard warnings: Aquatic Chronic 3

# SURFOX – THE ALTERNATIVE TO PICKLING PASTES!

## Electro-chemical weld seam cleaning for stainless steel and co.

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

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

### SURFOX 305

- ▶ Powerful weld seam cleaner for the cleaning and polishing of MIG-, TIG-, and spot welds on stainless steel
- ▶ The integrated tank with pump ensures permanent automatic electrolyte supply.
- ▶ Swift and safe work without interruptions
- ▶ Special marking kits for stainless-steel-, aluminium-, and titanium surfaces are available separately



### SURFOX Mini

- ▶ Cleans and polishes TIG- and spot welds on stainless steel
- ▶ Ideal for repairing components that are difficult to reach and in narrow spaces
- ▶ The electrolyte comes in handy tubes and is fastened directly on the wand
- ▶ Special marking kits for stainless-steel-, aluminium-, and titanium surfaces are available separately



For further information please go to <https://www.bio-circle.com/surfox-the-weld-seam-cleaner>

	SURFOX 305	SURFOX Mini
Power supply	230 Volt, 50/60 Hz	230 Volt, 50/60 Hz
Power consumption	900 W	450 W
Secondary voltage	10-30 V AC/DC	10-30 V AC/DC
Adjustment range	6–30 A	6–15 A
Tank capacity	1,9 L	–
Hose package length	4 m	2 m
Ground cable length	3 m	2 m
Weight	18.6 kg	3.8 kg
Dimensions L x W x H	470 x 260 x 380 mm	320 x 130 x 240 mm
IP protection class	IP 21	IP 23
Funktionen	Cleaning, electro-polishing, marking (optional extra)	Cleaning, electro-polishing, marking (optional extra)
Vapour elimination	Compressed-air connection	–
Scope of delivery	1 standard insert 90°, 1 brush kit B60, 3 standard pads, 1 clamp ring, 1 transport case	1 slim insert 90°, 1 carbon-fibre brush, 1 pad, 1 clamp ring, 1 transport case
Order no.	<b>54D338</b>	<b>54D086</b>



# SURFOX LIQUID

## Electrolytes for cleaning, polishing and neutralizing

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



## 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



<b>G10092</b>	100 ml tube, PU:6 x 100 ml
<b>G00192</b>	1 L bottle, PU:12 x 1 L
<b>G00592</b>	5 L jerrycan
<b>G02092</b>	20 L jerrycan
<b>G20092</b>	200 L plastic drum

## 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



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

## 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



<b>A00157-25</b>	1 L bottle, PU:10 x 1 L
<b>A00557-25</b>	5 L jerrycan
<b>A01057-25</b>	10 L jerrycan

# AUTRASYS

## The efficient, fast and safe way of applying cleaners and release agents for welding

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

- ▶ Time-saving because of large-area application
- ▶ Comfortable working, also overhead
- ▶ Eco-friendly – conventional compressed air as a propellant
- ▶ High efficiency thanks to micro-fine spray mist
- ▶ Low-maintenance operation thanks to AODD pump
- ▶ Adjustable output



RECOMMENDED CLEANERS, DEGREASERS AND RELEASE AGENTS	Page
CB 100 range	42
FOR CLEAN range	45
FT range	50
OMNI	60
E-WELD 2	110
E-WELD 3	110
E-WELD 4	110

**Please note:**  
Observe occupational limit values!

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

Drum holder for AUTRASYS	
Order no.	<b>G80001-01</b>



# FOAM SPRAYERS

To cleanliness with stable foam

**Pneumatic foam sprayers with a 3-m compressed-air hose. Easy to handle and safe to work with** because of stainless-steel housing, pressure relief valve and air pressure control.



## STAINLESS-STEEL FOAM SPRAYERS

For the application of low-viscous acidic and alkaline cleaners with pH values between 2 and 12, such as FOR CLEAN, CB 100, CB 100 LR, CB 100 Alu, CB 100 Alu LR, and Power Cleaner 200.

- ▶ **Air pressure: 8 bar max.**
- ▶ **Adjustable compressed air flow**
- ▶ **With handle and castors**

**G84001** Stainless-Steel Foam Sprayer 24 L

# FOAM GUNS

Always at the ready

**Pneumatic foam guns** for the application of low-viscous acidic and alkaline cleaners with pH values between 2 and 12, such as FOR CLEAN, CB 100, CB 100 LR, CB 100 Alu, CB 100 Alu LR, and Power Cleaner 200.

- ▶ **Air pressure: 6 – 7 bar**
- ▶ **Air consumption: 245 L/min at 6.3 bar**



## FOAM BOOSTER 1 I

- ▶ **Practical foam gun**
- ▶ **For effective, quick cleaning in-between**

**H10004** FOAM BOOSTER 1 L

**H10005** FOAM BOOSTER

with 12-m double hose



## FOAM BOOSTER

with 12-m double hose

- ▶ **Foam gun for large surfaces**
- ▶ **Easy handling**
- ▶ **Fast and convenient due to drum- or jerrycan connection**

# ACCESSORIES:



## Tap

- H00003** for 5 L and 10 L jerrycans
- H00004** for 20 L and 30 L jerrycans
- H00015** for 200 L plastic drum, 3/4" incl. adapter



## Stainless steel hand-operated pump

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



## Plastic hand-operated pump

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



## Jerrican cap spanner/ bung wrench

- H00016** Jerrican cap spanner  
for both DIN 51 and DIN 61,  
plastic, colour: green
- H00030** Bung wrench, metal,  
for 200 L drums



## Dosing pump and wall bracket

- H00011** Dosing pump incl. wall bracket  
for 3 L bottle Hand Cleaning Cream
- H00012** Dosing pump  
for 3 L bottle Hand Cleaning Cream



## HDPE bottle with trigger

- H00001** 500 ml, spray nozzle green/white
- H00101** 1000 ml, spray nozzle green/white



## 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



## Foam sprayer

- H10003** 1.5 l



## Task Pro

- H00036** Task Pro application system for E-WELD Nozzle



### Titration Kit small

**H00107** Titration Kit small for alkaline fluids

**H00607** Titration Kit small for acidic fluids

Each consisting of:

- burette
- 100 ml measuring cylinder
- indicator solution (20 ml dropper bottle)
- Erlenmeyer flask 250 ml
- 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, PU: 5 pcs.

**H00019** Foam rubber hand grinding disc, with strap,

Ø 150 mm, grip system, PU: 1 pc.



### Titration Kit big

**H00207** Titration Kit big for alkaline fluids

**H00707** Titration Kit big for acidic fluids

Each consisting 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



### Toolbox

**H521** green plastic, with aluminium handle

## 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 all component 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**



## USER CONTRACT – THIS IS HOW IT WORKS

### Effective solutions for work processes

You need a device for your cleaning processes; however, you don't want to buy it but only use it over a certain period of time.

We have the perfect solution for you. **With our user contracts you can use devices over a longer period of time without having to buy them.** We can offer different possibilities matching our stainless steel cleaning devices and our BIO-CIRCLE parts washers.

If you have any further questions, please feel free to contact us.



## You are in charge of occupational health and safety in your company? You are working with hazardous substances in your company?

### THE FOLLOWING LAWS ARE IMPORTANT FOR YOU!

#### REACH: Registration, Evaluation and Authorisation 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).

#### GHS (Globally Harmonized System) and 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 flashpoint (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).

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.

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 flashpoint (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).

#### 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.

#### 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.



**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 Nature Boost even more impressive is that it stands for non-combustible, VOC-free and non-labelled products.



**VOC-free, VOC-reduced**

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



**Non-labelled**

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



**NSF – Cleaning in the foodstuffs industry**

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



**Water-miscible**

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



**Clean Blue – energy efficiency**

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.

**Our delivery service (Germany)**

**Delivery time:** approx. 2 – 3 days

**Delivery:**

Free domicile incl. packaging for order values of € 600.00 or higher.

For order values (OV) under € 600.00,

we invoice the following service charges (SC):

<b>Service charge:</b> OV up to € 100.00	SC of € 11.00
OV up to € 200.00	SC of € 14.00
OV up to € 600.00	SC of € 17.00

**Collection by the customer:**

You are welcome to pick up your products Monday thru Friday between **8:00 a.m. and 4:30 p.m.** directly from our production facilities in Gütersloh. Please call ahead on **+49 (0) 5241 9443 0**, so that we can prepare your order for pick-up.

**Payment terms:**

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

**Reservation of title:**

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

All prices are subject to VAT at the applicable rate.

<b>2</b>	<b>1. WE FOR YOU</b>	<b>65</b>	E-NOX-I	<b>59</b>	STAR US 6 <b>NEW</b>
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# A STRONG GLOBAL PARTNER:



## Present around the globe

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

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Our products are sold and used in 63 countries.

We have a global network of own subsidiaries, production sites, and trade partners.

