SYSTEM CLEANING WITH A HEAD START



MAKING GREEN WORK.
25 Years BIO-CIRCLE SYSTEMS
40 Years BIO-CIRCLE

Bio-Circle Surface Technology GmbH Automatic parts cleaning – EN - AL06/ 2026

BIO-CIRCLE®

bio-circle.com

BIO-CIRCLE®

VISION

WE FOR YOU



THINK HOLISTICALLY.
DESIGNING EFFICIENT PROCESSES.

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

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

RESPONSIBILITY AND QUALITY

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

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

SET HIGH STANDARDS!

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

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



Carefully selected raw materials

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



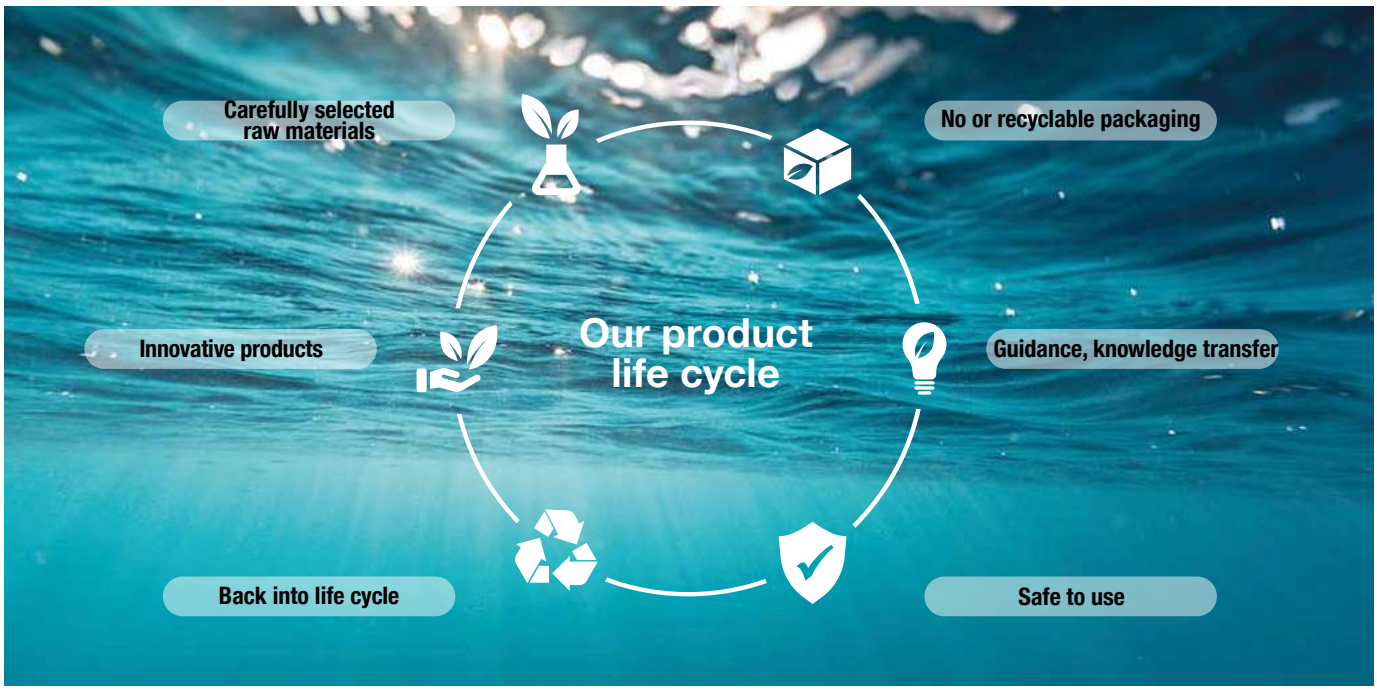
Innovative products

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

No or recyclable packaging



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



Sound advice and knowledge transfer

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

Safe to use

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

Back into the life cycle

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

MAKING GREEN WORK.



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

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

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

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

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

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

WE GIVE YOU MORE

To make you happy

More optimal cleaning processes

Your process optimization is important to us! We take you and your cleaning problem seriously and offer you individual solutions. We come to you, or you come to us in Gütersloh for cleaning trials.

More occupational safety

Reduce VOCs and your use of cleaners subject to labelling requirements.
Discover new possibilities for efficient and user-friendly cleaning processes.

More profitability

Identify your savings potential in your cleaning processes. Lower storage- and disposal costs due to long service lives and non-labelled cleaners speak for themselves.

THE PIONEER

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

- **Essential:** the product performance
- **Elementary:** the reduction of volatile organic compounds = solvents (VOC)
- **Topical:** the reduction of hazardous substances
- **Vital:** occupational safety
- **Comprehensive:** the certifications (NSF, ISO 14001, Ecovadis)
- **Intelligent:** the new BIO-CIRCLE-i technology for our parts washer

Any questions?

We are already looking forward to providing you with help and advice.

bio-circle.com



AUTOMATIC CLEANING SYSTEMS

Resource-conscious cleaning in industry

Cleaning work is almost indispensable in most industries. Whether in areas such as maintenance, the plastic injection moulding industry, the food industry, transport, traffic, logistics, automotive, CNC, skilled crafts and trades, the energy industry, agricultural technology or forestry, soiling is an issue everywhere.

As a manufacturer, we always strive to meet the growing demands and find the best cleaning method for our customers. **Our cleaning products help every industrial company to save time and maintain quality or to make the process within the value chain easier and more cost-optimized.**

More than 80 % of our cleaner volume is non-labelled according to the CLP regulation. The cleaning performance is enormously strong, and the cleaners are versatile. They are advocates for issues such as health and safety at work, the resource- and user-friendly use of cleaning products, and the reduction of hazardous substances in the workplace.



AT A GLANCE

Your page references

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AUTOMATIC



BIO-CIRCLE Turbo

2 in 1 – automatic and manual cleaning

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HTW

Robust, fully automatic hot water parts washers

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RWR KST / RWR

Cleaning system for pipes, heat exchangers and temperature control units

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Ultra-Sonic: Elmarsonic Select, Ultra-Sonic 183L - 28 / Skim and Multifrequency Devices

Effective and gentle ultrasonic cleaning

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PPT

Parallel Plate Separator

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	pH value (Values from MSDS)	VOC content in %	Flashpoint in °C	Parts washer	BIO-CIRCLE Turbo	Ultrasonic	RWR	Steel/Stainless steel	Aluminium	Non-ferrous metals	Plastics	Painted surfaces	Zinc-coated surface	Hazardous substance symbol	VOC-free	VOC-reduced	NSF	Label-free	Page
ALUSTAR 100	9.6	0.9	-	■	□	■		■	■	■	■	■	■	-	VOC free!	-	NSF	◇	18
ALUSTAR 175F	<11.5	0	-	■	□	■		■	■	■	■	■	□	-	VOC free!	-	-	◇	18
ALUSTAR 200	12.7	0	-	■	■	■	■	■	■	■	■	□	□	◇	VOC free!	-	-	-	18
ALUSTAR 300	13 – 14	0	-	■	■	■	■	■	■	□	■	□	□	◇	VOC free!	-	-	-	18
ALUSTAR 500	7.3	0	-	■	■	■	■	■	■	■	□	□	■	◇	VOC free!	-	-	-	19
BIO-CIRCLE L Evo	8	0	-	■	■			■	■	■	■	■	■	-	VOC free!	-	NSF	◇	11
Degrease Emulsion US Cleaner	11	0	-			■		■	□	□	■	□	□	-	VOC free!	-	-	◇	31
Degrease US Cleaner	<11.5	0	-			■		■	■	■	■	■	□	-	VOC free!	-	-	◇	31
Derust Acid US Cleaner	2.2	0	-			■		■	■	■	■	□	□	-	VOC free!	-	-	◇	31
Derust Neutral US Cleaner	-	0	-			■		■	■	□	■	□	■	-	VOC free!		-	◇	31
FOR CLEAN F	9	0	-	■	■	■		■	■	■	■	■	■	-	VOC free!	-	NSF	◇	21
Forma Shine 100	11	0	-	■	■	■	■	■	■	■	■	■	□	-	VOC free!	-	-	◇	22
Master Mould 100	13.4	0	-			■		■	■	□	□	□	□	◇	VOC free!	-	-	-	30
Power Cleaner 400	<1	2.6	-	■	□	■	■	■	■	■	■	□	□	◇	-	VOC reduced!	NSF	-	27
Power Cleaner DB	0.6	2.6	-	■		■	■	■	■	□	■	□	□	◇	-	VOC reduced!	NSF	-	27
Power Cleaner KST 2.0	0.8	1	-	■	□	■	■	■	■	■	■	□	□	◇	-	VOC reduced!	-	-	27
Smoke Resin Remover DB	14	0	-	■		■	■	■			□			◇ !	VOC free!	-	-	-	20
STAR 100	10.5	1.5	-	■	□	■		■			■	□		!	-	VOC reduced!	-	-	16
STAR 200	13.5	0	-	■		■	■	■			■	□		◇	VOC free!	-	-	-	16
STAR 300	14	0	-	■		■	■	■			■	□		◇	VOC free!	-	-	-	16
Defoamer HT	10.6	0	-	■	■		■	■	■	■	■	■	■	!	VOC free!	-	-	-	22
Defoamer RT	-	0	105	■	■		■	■	■	■	■	■	■	!	VOC free!	-	-	-	22
Corrosion Protection 100	8.6	-	-	■	■	■	■	■	■	■	□	■	■	-	VOC free!	-	-	◇	23
Corrosion Protection 200	9.5	-	>100	■	■	■	■	■	■	■	□	■	■	!	VOC free!	-	-	-	23
Accessories / Chemical Products																			33

■ recommended □ limited use not usable

BIO-CIRCLE TURBO

2 in 1 – automatic and manual cleaning

The perfect combination of the precision of manual cleaning and the efficiency of an automatic parts washer.
In manual cleaning mode, the flow brush can be used to clean part geometries that are difficult to reach.
In automatic mode, the system cleans fully automatically.

RECOMMENDED CLEANERS		Page
BIO-CIRCLE L Evo	Low-foaming cleaner with microorganisms, for manual and automatic cleaning, ideal cleaning temperature: 45 °C	11

BIO-CIRCLE Turbo

800, 1000, 1200, 1500

- **2 in 1 – combination of manual and automatic cleaning**
- **With access for manual cleaning when the lid is closed**
- **Precise manual cleaning with flow brush or nozzle**
- **6 bar max. compressed air gun in cleaning chamber**
- **Automatic cleaning pressure: 4 bar**
- **Insulation of the entire housing**
- **Long service life of the cleaner due to microorganisms: integrated oxygen supply via compressor/oxygen pump**



BIO-CIRCLE Turbo 800

Optional equipment: high-pressure module
The module includes a high-pressure gun with hoses, up to 60 bar max.

	BC Turbo 800	BC Turbo 1000	BC Turbo 1200	BC Turbo 1500
Overall width x overall depth (mm)	1220 x 1255	1420 x 1350	1630 x 1580	2080 x 1810
Height with lid closed/open with angled exhaust duct (mm)	2010	2175	2350	2760
Device dimensions (WxDxH) (mm)	1730 x 2010 x 2010	1925 x 2015 x 2175	2140 x 2340 x 2350	2590 x 2770 x 2760
Inner diameter of rack. approx. (mm)	775	975	1175	1495
Useful height max. (mm)	400	450	650	700
Payload max. (kg)	350	350	350	350
Useful capacity of the washing fluid tank – min./max. capacity (L)	130/170	200/260	300/380	375/475
Total weight of the cleaning device (kg) excl. tank filling. payload and supplementary equipment	350	420	430	610
Connected value total (kW) excl. supplementary equipment approx.	7,7	9	9	16
Power supply – 3-phase current (V)/ frequency (Hz)	400/50	400/50	400/50	400/50
Plug	16A CEE 5p 6h	32A CEE 5p 6h	32A CEE 5p 6h	63A CEE 5p 6h
Air connection min. – max. (bar)	5–8	5–8	5–8	5–8
Compressed-air hose Ø 10 mm (bar)	10	10	10	10
Pump – automatic cleaning: flow rate (m^3/h / delivery head m H_2O)	12	12	12	14,4
Pump – manual cleaning: flow rate (m^3/h / delivery head m H_2O)	4,8	4,8	4,8	4,8
Electric heating in the washing tank (kW)	4,5	6	6	2 x 6
Treatment temperature (guide value) (°C)	45	45	45	45
Order number	**G40027**	**G42027**	**G43027**	**G45027**

BIO-CIRCLE L EVO

With microorganisms

High-level cleaning: simple – fast – safe.

The water-based, alkaline BIO-CIRCLE L Evo is solvent-free and does not require labelling, whilst offering excellent cleaning performance. It delivers high cleaning performance for industrial applications and provides an alternative to solvent-based cleaners. Using this product promotes greater health and safety at work and reduces operating costs, benefiting both users and business owners alike.

The microorganisms* contained break down the removed oil and ensure consistent cleaning performance and a long service life.

BIO-CIRCLE L Evo

- **For moderate to heavy soiling**
- **Environmentally friendly and safe**
- **For manual and automatic use: in BIO-CIRCLE parts washers, parts washing systems and high-pressure parts washers**
- **VOC- and label-free according to the CLP Regulation**
- **Cleans virtually all materials: aluminium, zinc-coated surfaces, and non-ferrous metals as well as steel/stainless steel and plastic**

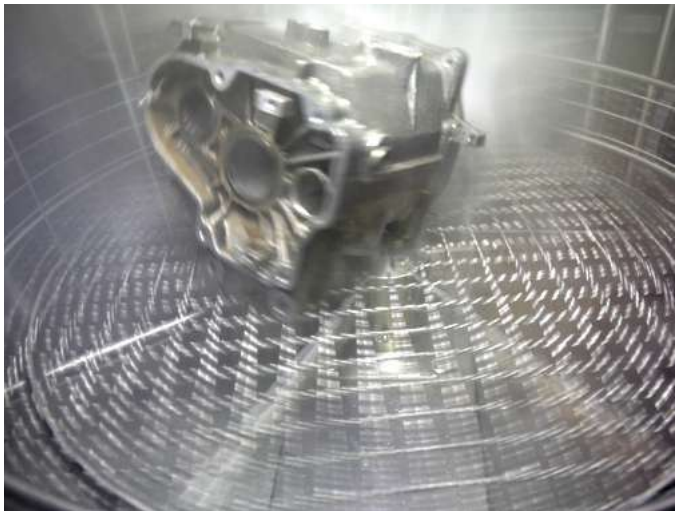
A02093	20 L jerrycan
A20093	200 L drum
A10093	1000 L IBC

BIO-CIRCLE L Evo cleans a wide variety of soiling, depending on the requirements and cleaning system: heavy grease and oil, separating agents, smoke residues, soot, wear particles and swarf. In certain cases also: burnt-in organic soiling, rust, oxidation and heat tinting, bitumen, and anti-corrosion waxes.
Material: stainless steel, steel, plastic, painted and zinc-coated surfaces, aluminium, non-ferrous metal.

FIELD OF USE: maintenance of components, workpieces, and engines. Across industries: automotive, food, metalworking/CNC, rail transport, skilled crafts and trades.

Manual and automatic cleaning in the BIO-CIRCLE Turbo





*The microorganisms used are non-pathogenic bacteria of risk group 1 (classified according to BioStoffV 2000/54/EC, TRBA 466).
Risk group 1: Substances that are unlikely to cause disease in humans.

HTW-II BIO

Hot-water parts washers

Whether HTW-II Bio, the standard version HTW-II or the individual HTW machine packages: They are all robust and fully automatic and ideal for single-stage cleaning and degreasing.

The **HTW-II Bio** stands out from all hot-water parts washers because it is a real all-round talent. It is operated with the BIO-CIRCLE L Evo cleaner, which is perfectly matched to the HTW-II Bio. This means not only safe working and a long service life, but also the cleaning of medium to heavy soiling from materials such as steel, stainless steel, plastic, aluminium, zinc-coated surfaces, and non-ferrous metals.

RECOMMENDED CLEANERS FOR HTW-II BIO Page

BIO-CIRCLE L Evo
Removes even the strongest incrustations and carbonizations. Low-foaming machine cleaner for automatic parts cleaning machines, ideal cleaning temperature: 45 °C 11

The conversion existing plants to HTW Bio is possible. Please contact us.



HTW-II Bio 800

HTW-II Bio

800, 1000, 1200, 1500

With aeration* that allows the microorganisms** to work.

- ▶ **350 kg payload, already with HTW-II Bio 800**
- ▶ **Degradation of grease and oil by microorganisms**
- ▶ **Long cleaner service life due to recirculation**
- ▶ **Less cleaner storage capacity required**
- ▶ **Less waste disposal**
- ▶ **Insulation of the entire housing**
- ▶ **HTW-II Bio 800: 2.5 bar operating pressure**
  HTW-II Bio 1000, 1200, 1500: 4 bar operating pressure

Oxygen membrane compressor





	HTW-II Bio 800	HTW-II Bio 1000	HTW-II Bio 1200	HTW-II Bio 1500
Overall width x overall depth (mm)	1215 x 1165	1405 x 1280	1620 x 1510	2080x 1720
Height with lid closed/open with angled exhaust duct (mm)	1800	2040	2320	2760
Device dimensions (WxDxH) (mm)	1625 x 1465 x 1800	1820 x 1820 x 2040	2030 x 2000 x 2320	2590 x 2560 x 2740
Inner diameter of rack. approx. (mm)	800	975	1175	1500
Useful height max. (mm)	400	450	650	700
Payload max. (kg)	350	350	350	350
Useful capacity of the washing fluid tank – min./max. capacity (L)	100/140	230/280	345/425	620/720
Total weight of the cleaning device (kg) excl. tank filling. payload and supplementary equipment	240	370	500	800
Connected value total (kW) excl. supplementary equipment approx.	5,5	8,6	11,6	21,3
Power supply – 3-phase current (V)/ frequency (Hz)	400V 50Hz	400V 50Hz	400V 50Hz	400V 50Hz
Plug	16A CEE 5p 6h	32A CEE 5p 6h	32A CEE 5p 6h	63A CEE 5p 6h
Pump – automatic cleaning: flow rate (m^3/h / bar)	4,8	12	12	14,4
Electric heating in the washing tank (kW)	4,5	6	9	2x 9
Treatment temperature (guide value) (°C)	45	45	45	45
Oxygen membrane compressor	yes	yes	yes	yes
Order number	**G12630B-BIO**	**G12640B-BIO**	**G12650B-BIO**	**G12660B-BIO**

**The microorganisms used are non-pathogenic bacteria of risk group 1 (classified according to BioStoffV 2000/54/EC, TRBA 466).
Risk group 1: Substances that are unlikely to cause disease in humans.

HTW-II

The standard version

Powerful, simple, and safe to operate: the hot-water parts washers are robust and ideal for single-stage cleaning and degreasing. Due to the driven rotating basket and the spraying pressure, the Bio-Circle cleaners in the hot water parts washer have an optimum effect on the items to be cleaned.

FIELD OF USE: maintenance of components, workpieces, and motors.
Across industries: automotive, metalworking/CNC, suitable as a workstation system for production and maintenance.

HTW-II

800, 1000, 1200, 1500

- **350 kg payload, already with HTW-II 800**
- **Compact design**
- **Easy handling**
- **High cleaning power**
- **Powerful stainless-steel pump**
- **Economical to use**
- **Point-jet nozzles**
- **PPT connection prepared (Parallel Plate Separator)**
- **HTW-II 800: 2.5 bar operating pressure**
  HTW-II 1000, 1200, 1500: 4 bar operating pressure

Customised configuration of the HTW is no problem. (e.g. increasing the load capacity, etc.).
Please contact us.



HTW-II Basic 800

	HTW-II 800	HTW-II 1000	HTW-II 1200	HTW-II 1500
Overall width x overall depth (mm)	1175 x 1145	1375 x 1250	1585 x 1510	2080 x 1680
Height with lid closed/open with angled exhaust duct (mm)	1780	2010	2300	2700
Device dimensions (WxDxH) (mm)	1590 x 1460 x 1780	1780 x 1820 x 2010	1990 x 2000 x 2300	2590 x 2520 x 2700
Inner diameter of rack. approx. (mm)	800	975	1175	1500
Useful height max. (mm)	400	450	650	700
Payload max. (kg)	350	350	350	350
Useful capacity of the washing fluid tank – min./max. capacity (L)	100/140	230/280	345/425	620/720
Total weight of the cleaning device (kg) excl. tank filling. payload and supplementary equipment	190	300	400	670
Connected value total (kW) excl. supplementary equipment approx.	5,4	8,5	11,5	21,3
Power supply – 3-phase current (V)/ frequency (Hz)	400/50	400/50	400/50	400/50
Plug	16A CEE 5p 6h	32A CEE 5p 6h	32A CEE 5p 6h	63A CEE 5p 6h
Pump – automatic cleaning: flow rate (m^3/h / bar)	4,8	12	12	14,4
Electric heating in the washing tank (kW)	4,5	6	9	2x 9
Treatment temperature (guide value) (°C)	85 max.	85 max.	85 max.	85 max.
Order number	**G12630B**	**G12640B**	**G12650B**	**G12660B**

HTW DEVICE PACKAGES

Technological optimization

- ▶ **HTW packages: perfectly matched equipment**
- ▶ **For your individual application**
- ▶ **350 kg load capacity, in ALL HTW-II 800 models**
- ▶ **Compact, high-quality stainless-steel design**
- ▶ **Easy handling**
- ▶ **Maintenance-friendly**
- ▶ **PPT connection prepared (Parallel Plate Separator)**



HTW-II Flex

HTW-II Basic

800, 1000, 1200, 1500

For the cleaning of standard parts.

- ▶ **Fan nozzles**
- ▶ **Digital temperature control**
- ▶ **HTW-II Basic 800:**
  2.5 bar operating pressure
  HTW-II Basic 1000, 1200, 1500:
  4 bar operating pressure

HTW-II Basic Eco

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**
- ▶ **HTW-II Basic Eco 800:**
  2.5 bar operating pressure
  HTW-II Basic Eco 1000, 1200, 1500:
  4 bar operating pressure

Cleaning with STAR 100 – plastic parts



Cleaning with STAR 500 – machine parts





HTW-II Max Eco – Height-adjustable nozzle holder for cleaning and air shower



HTW-II – Vapour extraction incl. condensate recovery (BC Turbo and HTW Max Eco)

HTW-II Flex Eco

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**

HTW-II Max Eco

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)**
- **HTW-II Max Eco 1000, 1200, 1500: payload 1000 kg**

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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, feature a fabulous cleaning activity already at ambient temperature, and can be heated up to 60 °C. All three cleaners provide temporary corrosion protection; they are demulsifying and hence recyclable with a long service life.

STAR 100

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

A02095 20 L jerrycan
A20095 200 L plastic drum
A10095 1000 L IBC
Hazard notice: Eye Irrit. 2, Skin Irrit. 2

STAR 200

- **Effective, universal, high yield**
- **Low-temperature cleaner**
- **Ideal for pre- and intermediate cleaning**

A02078 20 L jerrycan
A20078 200 L plastic drum
A10078 1000 L IBC
Hazard notice: Eye Dam. 1, Skin Corr. 1A

STAR 300

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

A02079 20 L jerrycan
A20079 200 L plastic drum
A10079 1000 L IBC
Hazard notice: Eye Dam. 1, Skin Corr. 1A, Met. Corr. 1

Cleaning machine parts with STAR 100





Mechanical cleaning in the HTW

Cleaning agent	Miscibility	Mixing ratios for parts washers	
	with water	**HTW Hot-water parts washer**	BIO-CIRCLE Turbo
STAR 100	yes	2.5 % – 7 %	2.5 % – 7 %
STAR 200	yes	2.5 % – 7 %	2.5 % – 7 %
STAR 300	yes	2.5 % – 7 %	2.5 % – 7 %

STAR cleaning	Aluminium	Zinc-coated surfaces	Non-ferrous metals	Brass, high-gloss polished	High-gloss polished surfaces	Steel/stainless steel	Plastics	Alkali-resistant surfaces	Spray cleaning	Immersion cleaning	Low-temperature cleaning
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, foodstuffs, 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**
- **Silicate-free**
- **Salt-free**

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

ALUSTAR 175F

- **For use in drum and spray processes**
- **Extremely low-foaming low-temperature cleaner**

A917020 20 L jerrycan
A917200 200 L plastic drum
A917100 1000 L IBC

ALUSTAR 200

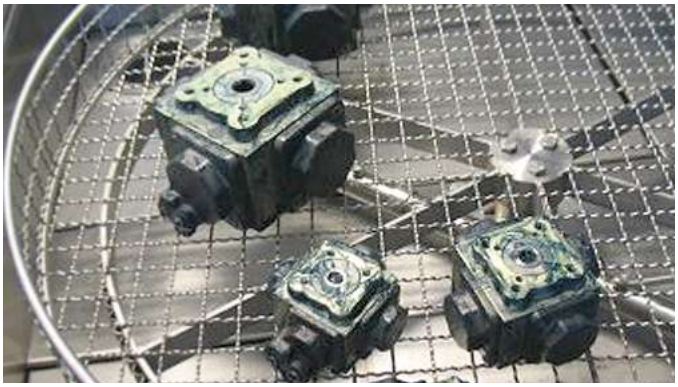
- **For strong contaminations**
- **Can be used at low temperatures**

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

ALUSTAR 300

- **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**
- **Can be used at low temperatures**

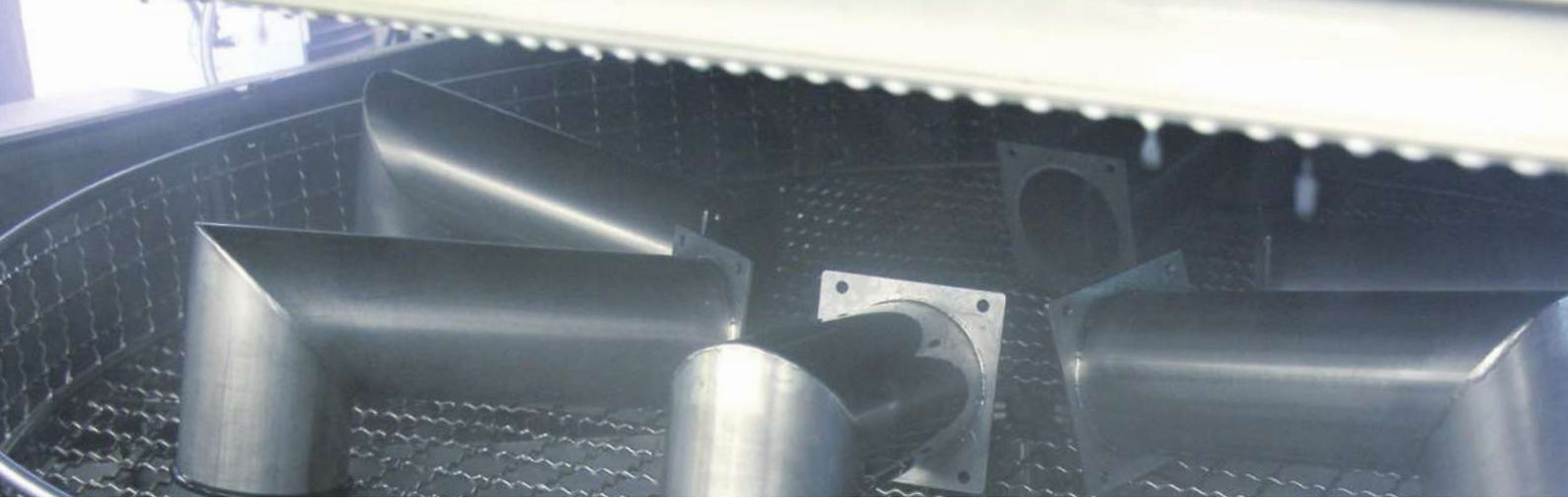
A02029 20 L jerrycan
A20029 200 L plastic drum
A10029 1000 L IBC
Hazard notice: Eye Dam. 1, Skin Corr. 1B



Grease, oil, separating agents, smoke residues, soot, wear particles and swarf are removed from stainless steel, steel, aluminium, plastics, and in certain cases also from non-ferrous metals, varnished and zinc-coated surfaces, etc.

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.

Cleaning machine parts with ALUSTAR 100 in the HTW



Cleaning machine parts with ALUSTAR 500 in the HTW

Uncompromisingly good – gentle on the material

ALUSTAR 500

Do you despair of cleaning burnt-on grease and caked-on oils on sensitive materials? You can't get your components clean after deep drawing? The water-based machine cleaner ALUSTAR 500 does what classic alkaline cleaners cannot: it removes burnt-in oil and grease residues from aluminium, brass, and copper!

A02021 20 L jerrycan
A20021 200 L plastic drum
A10021 1000 L IBC
Hazard notice:
Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 3

- ▶ **Remove high-grade contamination, burnt-in oils and greases, rubbed-off material, contamination after deep-drawing, etc.**
- ▶ **Excellent material compatibility**
- ▶ **VOC-free, silicate-free, free from alkalis**
- ▶ **pH neutral and low residue**

Cleans all common metals, also sensitive metals such as aluminium, brass, and copper.

FIELD OF USE: machine cleaner for hot-water parts washers and high-pressure parts washers; can also be used in immersion baths and ultrasonic cleaning devices. For maintenance/cleaning of machines and components. Industries: steel industry, automotive, metal/CNC, rail transport

Cleaning agent	Miscibility		Mixing ratios for parts washers		
	with water	in manual applications	HTW	BIO-CIRCLE Turbo	BIO-CIRCLE HP
ALUSTAR 100	yes	only in the system	2.5 % – 7.5 %	2.5 % – 7.5 %	2.5 % – 7.5 %
ALUSTAR 175F	yes	only in the system	2.5 % – 7.5 %	2.5 % – 7.5 %	2.5 % – 7.5 %
ALUSTAR 200	yes	only in the system	2.5 % – 7.5 %	2.5 % – 7.5 %	2.5 % – 7.5 %
ALUSTAR 300	yes	only in the system	2.5 % – 7.5 %	2.5 % – 7.5 %	2.5 % – 7.5 %
ALUSTAR 500	yes	only in the system	10 % – 100 %	10 % – 100 %	10 % – 100 %

MORE HTW CLEANERS

The right product for every type of soiling

Smoke Resin Remover DB

A01058 10 L jerrycan
A02058 20 L jerrycan
A20058 200 L plastic drum
A10058 1000 L IBC
Hazard notice: Acute Tox. 4,
Eye Dam. 1, Skin Corr. 1A, Met. Corr. 1

The cleaner is solvent-free; the surfactants are biodegradable in accordance with OECD 301 A-F. The smoke resin specialist effortlessly removes burnt-in soiling. It is water-based, alkaline and water-miscible.

- ▶ **Intensive cleaner for mechanical application**
- ▶ **Water-miscible**
- ▶ **Approved by Deutsche Bahn AG**

Please Note:
Do not apply the cleaner in concentrated form on aluminium and zinc coatings!

The toughest soiling, resinous and burnt-in residues are a thing of the past with the use of the Smoke Resin Remover. It effortlessly removes burnt-in organic soiling, grease, oil, separating agents, resin, tar, rubber residues, food, smoke residues, soot, wear particles and swarf from stainless steel, steel, and plastics.

UNIVERSAL MECHANICAL APPLICATION: in hot-water parts washers (single- and multi-chamber spray cleaning systems), ultrasonic cleaning devices and in RWR cleaning systems for pipes and heat exchangers.

Power Cleaner DB

A01028 10 L jerrycan
A02028 20 L jerrycan
A20028 200 L plastic drum
A10028 1000 L IBC
Hazard notice: Eye Dam. 1, Skin Corr. 1B,
Met. Corr. 1

Limescale does not have to be a problem, neither aesthetically nor hygienically, neither in pipes nor on surfaces. **Power Cleaner DB is free of phosphates and hydrofluoric acid, and it is also VOC-reduced**.
The water-based, acidic cleaner brings shine to your surfaces.

- ▶ **Especially for mechanical use in the RWR (cleaning and flushing of pipelines) and in the HTW**
- ▶ **REMOVES extremely stubborn soiling such as limescale, mineral deposits and, in certain cases, rust, oxidation, and heat tinting**
- ▶ **CLEANS stainless steel, steel, aluminium, plastic and, in certain cases, non-ferrous metal etc.**

FIELD OF USE: food industry, plastics processing (cleaning of cooling ducts of plastic injection moulds), cleaning of vacuum toilets, flushing of pipelines and circulation systems.

BASIC CLEANING OF THE HTW of residues such as lime scale, salts and silicates recommended 1x per year: free nozzles and a clean device.

MECHANICAL APPLICATION: HTW (hot-water parts washers), RWR (pipe and heat exchanger cleaning systems), ultrasonic cleaning devices.

FOR CLEAN F

A02013	20 L jerrycan
A20013	200 L plastic drum
A10013	1000 L IBC

FOR CLEAN F is what safety officers, purchasers, and users want:

- **Safe → label-free**
- **Cost-efficient → miscible with water**
- **100% readily biodegradable active ingredients in accordance with OECD 301 A-F**
- **Low foaming**
- **Low residue: subsequent processes such as bonding, welding and varnishing are possible**
- **REMOVES soiling such as grease, oil, separating agents, food residues, smoke residues, soot, wear particles, swarf, rubber residues, etc.**
- **CLEANS stainless steel, steel, plastics, and varnished surfaces; in certain cases also non-ferrous metal, zinc-coated surfaces, etc.**

Cleaning agent	Miscibility		Mixing ratios for parts washers	
	with water	in manual applications	**HTW Hot-water parts washer**	BIO-CIRCLE Turbo
FOR CLEAN F	yes	5 % – 100 %	2.5 % – 7 %	2.5 % – 7 %

FIELD OF USE: maintenance of machines, universal cleaner for every industry

Cleaning ball bearings in the HTW



ADDITIONAL DOSING FOR MACHINE CLEANERS

Less foam

Defoamer HT

VOC free!

A00187 1000 ml plastic bottle
A01087 10 L jerrycan
Hazard notice: Acute Tox. 4

- **Fast and permanent foam destruction**
- **contains only substances that are readily biodegradable in acc. with OECD 301 A–F**
- **To be used in hot-water parts washers, etc.**

Defoamer RT

VOC free!

A00187-02 1000 ml plastic bottle
A01087-02 10 L jerrycan
Hazard notice: Eye Irrit. 2

- **Fast and permanent foam destruction even at room temperature**
- **To be used in hot-water parts washers, etc.**
- **Can also be used in strongly alkaline and strongly acidic areas**

Important:
Mix with 2 L of process fluid and add to the system.
See label for mixing ratio.

FIELD OF USE:
ideally suited for the STAR-, ALUSTAR- and STAR US products

Protection from darkening

Forma Shine 100

unlabelled VOC frei!

B00126 1 L plastic bottle
B02026 20 L jerrycan
B20026 200 L plastic drum

- **Additive to Bio-Circle cleaning products in use**
- **Special anti-blacking agent: Prevents darkening of steels**
- **Environmentally and employee-friendly: Label-free and VOC-free**
- **Improvement of the cleaning effect: Especially for scales and brake dusts**
- **Suitable for all standard materials**

FIELD OF USE: The label-free and VOC-free additive gives neutral and alkaline cleaning solutions an **additional rust-removing effect and counteracts darkening of steels**.
Recommended concentration: up to 2 %;
Rust-removing effect only against flash rust.
Particularly in the case of stubborn soiling such as cracking and brake dusts, **Forma Shine 100** provides increased cleaning cleaning performance. As an **additive** to cleaning products already in use cleaning products from Bio-Circle, it is easy to handle.



Without Forma Shine 100



With Forma Shine 100



Cleaning ball bearings in the HTW

More protection for steel parts, iron parts, and castings

Corrosion Protection 100

For water-based systems

VOC free!

A00111	1000 ml plastic bottle
	PU: 12 x 1000 ml (1 box)
A01011	10 L jerrycan
A02011	20 L jerrycan

- **Light corrosion protection (not visible or noticeable) that does not necessarily have to be removed before subsequent processes**
- **Easy to wash off**
- **Label-free, VOC-free in accordance with CLP regulation**
- **Free from nitrite, secondary amines, and phosphorus compounds**
- **FAD-free, boron-free**
- **Amine-based**

FIELD OF USE:
in all neutral and alkaline BIO-CIRCLE cleaners, as well as in many parts washers, RWRs and baths.

Important:
Mix with water or cleaner, stirring thoroughly, and add to the system.

Corrosion Protection 200

For water-based systems

VOC free!

A00153	1000 ml plastic bottle
	PU: 12 x 1000 ml (1 box)
A02053	20 L jerrycan
A20053	200 L drum
	Hazard notice: Eye Irrit. 2



- **Extended corrosion protection → storage (in-house) possible for at least 2 weeks**
- **Tangible, non-sticky protective film on surfaces and parts**
- **Easier to wash off than pastes and waxes**
- **Fast and powerful → electrolyte- and temperature-stable emulsion**
- **Low labelling, VOC-free in accordance with CLP regulation**
- **Free from nitrite, secondary amines, and phosphorus compounds**
- **FAD-free, boron-free**
- **Based on mineral oil**

FIELD OF USE: In the cleaning system it is compatible with any standard cleaning agent (neutral and alkaline) from Bio-Circle. Primary application: manually, in passivation baths and in immersion baths.

Can also be used in the BIO-CIRCLE parts washer, from 50 °C in BIO-CIRCLE high-pressure parts washers.

Cleaning agent	Miscibility		Mixing ratios for parts washers				
	with water	in manual applications	HTW	BIO-CIRCLE Turbo	BIO-CIRCLE HP	HP VIGO	RWR
Corrosion Protection 100	yes	0.5 % – 2.5 %	0.5 % – 2.5 %	0.5 % – 2.5 %	0.5 % – 2.5 %	0.5 % – 2.5 %	0.5 % – 2.5 %
Corrosion Protection 200	yes	0.5 % – 10 %	0.5 % – 5 %	0.5 % – 5 %	0.5 % – 5 %	0.5 % – 5 %	0.5 % – 5 %

RWR KST

Cleaning of plastic injection moulds

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 needs to be equipped with a supply- and a return pipe. **The Power Cleaner KST 2.0 is pumped through the tool.**

FIELD OF USE: maintenance of plastic injection moulds, across all industries

RWR-80 L KST Dual Automatic, RWR-80 L KST Fully Automatic PLC

- **Stainless-steel 80 L fluid vessel with integrated drain and stainless-steel heating with adjustable thermostat – factory-set at an optimal 60 °C**
- **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**
- **Delivery includes acid-resistant hoses**
- **All models feature an integrated flushing device for corrosion protection**

- **RWR 80 L KST Fully Automatic PLC: easy to operate due to the PLC ("Programmable Logic Controller") system that secures the automatic process**

	RWR-80 L KST Dual Automatic		RWR-80 L KST Fully Automatic PLC
Total width x total depth x total height (mm)	1515 x 780 x 990		1275 x 820 x 1285
Machine footprint (W x D x H) (mm)	1515 x 780 x 990		1275 x 820 x 1285
Cleaning liquid tank – capacity (L)	80		80
Useful volume (L)	60		60
Total weight of the cleaning system excl. tank filling and additional equipment approx. (kg)	150		180
Connected load (kW)	5,1		4,5
Power supply (V)/frequency (Hz)	400V 50Hz		400V 50Hz
Ball valve for draining the cleaning liquid tank (inch ")	1 1/2		1 1/2
Electric heating in the washing tank	4,5		4,5
Treatment temperature (factory set to optimum 60 °C)	<70		60
Pump:	Compressed air diaphragm pump	Centrifugal pump	Compressed air diaphragm pump
Flow rate (l/min)	56/19	80	56/19
Delivery head (m)	69	31	-
Maximum operating temperature (°C)	<70	-	<70
Compressed air (bar) / Pump motor (kW)	2.8–6.9 bar	0.55 kW	2.8–6.9 bar
Order number	**G29024**		**G2980-SPS**


Plastic injection mould

RECOMMENDED CLEANERS:		Page
Power Cleaner KST 2.0	Water-based acidic cleaner, ready for use, especially for mechanical applications in the RWR KST, for the removal of limescale and corrosion.	27
Corrosion Protection for water-based systems	Low-foaming, amine-based, optimal for steel-, iron-, and casting materials.	23
Application AFTER the cleaning process: Mix Corrosion Protection with water and flush the device.		


RWR-80 L KST Fully Automatic PLC Display


Liquid tank with sieve



RWR-80 L KST Fully Automatic PLC

RWR-80 L KST Dual Automatic	RWR-80 L KST Fully Automatic PLC
- Digital flow meter under constant pressure (centrifugal pump) - Compressed air bypass - Automatic change of flow direction - Integrated flushing device for corrosion protection	- PLC system - Readable via PLC display: temperature, flow measurement, cleaning time - Operating hours counter - Automatic change of flow direction - Integrated flushing device for corrosion protection - STB (safety temperature limiter of the heating) - Overall cladding of the system for sound level reduction/tank insulation - Constant compressed-air supply - Compressed-air diaphragm pump for all process cycles

RWR

Cleaning system 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 so that your systems remain clean and thus function effectively.

FIELD OF USE: plant maintenance, across all industries

RECOMMENDED CLEANERS:	
Power Cleaner DB	P..
Especially for mechanical applications in the RWR, removes contaminations such as urine scale, limescale, and corrosion, with simultaneous antibacterial effect	27
Smoke Resin Remover DB	
Ready-to-use intensive cleaner for mechanical applications, especially for pipe- and heat exchanger cleaning devices, removes greases, oils, and oil carbon.	20

RWR

80, 300, 500

- **Stainless-steel fluid vessel with integrated drain**
- **Stainless-steel heating with adjustable thermostat (up to 90 °C), factory-set at an optimal 60 °C**
- **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 dismounting of components required**



RWR-80 L

	RWR-80 L	RWR-300 L	RWR-500 L
Total width x total depth x total height (mm)	1200 x 770 x 990	1500 x 800 x 1100	2530 x 1200 x 1385
Machine footprint (W x D x H) (mm)	1200 x 770 x 990	1500 x 800 x 1100	2530 x 1200 x 1385
Cleaning liquid tank – capacity (L)	80	300	700
Useful volume (L)	60	200	500
Total weight of the cleaning system excl. tank filling and additional equipment approx. (kg)	130	170	450
Connected load (kW)	4,6	15	18,5
Power supply (V)/frequency (Hz)	400/50	400/50	400/50
Ball valve for draining the cleaning liquid tank (inch ")	1 1/2"	1 1/2"	1 1/2"
Electric heating in the washing tank	1 x 4,5 kW	2 x 6 kW	2 x 7,5 kW
Treatment temperature (factory set to optimum 60 °C)	60	60	60
Centrifugal pump: Max. flow rate (l/h) Max. head (m) Pump motor (kW)	 80 31 0,55	 210 62,5 3	 210 62,5 3
Order number	**G29000**	**G29200**	**G29400**

THE POWER CLEANER RANGE

Limescale (dis)solved

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.

The cleaners of the Power Cleaner range make short work of **extremely persistent contaminations such as lime-scale, 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.

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 notice: Eye Dam. 1,
Skin Corr. 1B, Met. Corr. 1

Power Cleaner DB

- **Especially for mechanical applications in the RWR (cleaning and flushing of pipelines) and in the HTW**

A01028 10 L jerrycan
A02028 20 L jerrycan
A20028 200 L plastic drum
A10028 1000 L IBC
Hazard notice: 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 notice: Eye Irrit. 2, Skin Corr. 1B

FIELD OF USE: food industry, plastics processing (cleaning of cooling ducts of plastic injection moulds), railways

MECHANICAL APPLICATIONS: pipe- and heat exchanger cleaning devices, cleaning- and flushing systems for the cooling ducts of plastic injection moulds, hot-water parts washers, and ultrasonic cleaning devices.

Cleaning agent	Miscibility		Mixing ratios for parts washers		
	with water	in manual applications	HTW	BIO-CIRCLE Turbo	RWR
Power Cleaner 150	yes	5 % – 100 %	5 % – 30 %	Upon consultation	–
Power Cleaner 200	yes	5 % – 100 %	–	–	–
Power Cleaner 300	yes	2.5 % – 100 %	–	–	–
Power Cleaner 400	yes	5 % – 100 %	5 % – 30 %	Upon consultation	10 % – 30 %
Power Cleaner DB	yes	5 % – 100 %	5 % – 30 %	Upon consultation	20 % – 60 %
Power Cleaner KST 2.0	no	undiluted	undiluted	undiluted	undiluted

ULTRASONIC CLEANING DEVICES

Riding the waves

Parts with complex geometries are cleaned effectively with ultrasonic waves. Even tough cases, i.e. 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 carburettors, filters, shafts, valves, pumps, motors, and components of any kind; small-part paint stripping and rust removal



Ultra-Sonic 110L

Ultrasonic device with 110 L capacity.

- **Durable – for long-term industrial use**
  AISI 304/316 for high durability
- **28 kHz ultrasonic power**
- **Output adjustable to suit the application and material**
- **Sound and heat insulation – 50 mm thick**
- **With touchscreen control panel**
- **Suitable for all standard applications**
- **No separate degassing cycle**





Ultra-Sonic 110L	
External dimensions of device (mm)	970/ 670/970
Internal dimensions of tank (mm)	600/400/460
Internal dimensions of the basket (mm)	550/350/250
Load capacity of the basket (kg)	25
Height of worktop (mm)	970
Tank capacity (L)	110
Power of ultrasonic generator (W)	1000
Ultrasonic operating frequency (kHz)	28
Heating resistance (kW)	3
Order number	**G24110**

RECOMMENDED CLEANERS:	Page
US Cleaner	31

	Steel/stainless steel	Aluminium	Non-ferrous metals	Plastic	Painted surfaces	Galvanised surfaces
DERUST ACID US CLEANER	✔	✔	✔	✔	✔	✔
DERUST NEUTRAL US CLEANER	✔	✔	✔	✔	✔	✔
DEGREASE US CLEANER	✔	✔	✔	✔	✔	✔
DEGREASE EMULSION US Cleaner	✔	✔	✔	✔	✔	✔

Ultrasonic Cleaning Device Ultra-Sonic 183L - 28 / Skim



Large ultrasonic device with 180 L capacity.

- **Removable workpiece carrier with lifting device (HubRT) (80 kg max.)**
- **28 kHz ultrasonic power**
- **Sound and heat insulation – 50 mm thick**
- **With touchscreen control panel**
- **For all common applications**
- **With drain valve for main and additional tank**
- **With oil separation in additional tank (Oil separation tank)**

Ultra-Sonic 183L - 28 / Skim	
External dimensions of device (mm)	1.500/980/1510
Internal dimensions of tank (mm)	710/500/540
Usable dimensions of support rack (mm)	680/435/400
Height of worktop (mm)	970
Tank capacity (L)	183
Power of ultrasonic generator (W)	1000
Ultrasonic operating frequency (kHz)	28/40
Heating resistance (kW)	3,75
LIFTING DEVICE **HubRT**	
Up and down movement	Yes
Removable workpiece carrier	Yes
Lifting device	Pneumatic
Compressed air flow (bar)	6.5 – 8.5
Maximum load of the lifting device (kg)	80
Order number	**G24180**



Lifting device

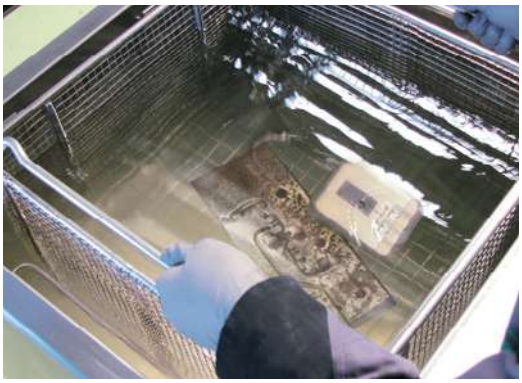
FOR USE IN ULTRASONIC CLEANING DEVICE

Flawless cleaning for the finest details

Master Mould 100

A020910 20 l jerrycan
A200910 200 L plastic drum
A100910 1000 L IBC

Developed **for use in Ultrasonic Cleaning Devices**, the cleaner is effective against plastic outgassing, plastic residues, grease, corrosion protection agents and flash rust with light corrosion.
The cleaner is dilutable, foaming and VOC-free.
In addition, it is compatible with steels, stainless steels, aluminium, and non-ferrous metals and contains a special anti-blacking agent to prevent darkening when cleaning steels.



Master Mould 100 cleans even the **smallest filigree nooks and crannies** in mould inserts, ensuring perfect shaping of your products.

- **For use in the Ultrasonic Cleaning Device**
- **Removes plastic outgassing, plastic residues, grease, corrosion protection agents and flash rust with light corrosion**
- **Cleans steel, stainless steel, aluminium and non-ferrous metals**
- **Cleaning of filigree plastic injection moulding tools, etc.**
- **Gentle cleaning because VOC-free**
- **With anti-darkening formula**

FIELD OF USE: In Ultrasonic Cleaning Devices
For use in the plastic injection moulding industry for cleaning mould inserts
Cleaner can also be used in oil separators such as the Plate Separator

APPLICATION:
Add 20–50 % of the cleaner to the ultrasonic bath and dilute with water. Heat to 60 °C.
Cleaning time: approx. 15–30 minutes, depending on the degree of soiling.

ADDITIVES:
Corrosion Protection 100 against corrosion.
Can be added in the range of 0.5 to 3 %.







HIGH PERFOMANCE US CLEANER

Cleaning – Degreasing – Derusting

When precision counts, cleanliness is not a secondary consideration – it is key.
With the Ultra Sonic Clean Line, every perfect result begins with cleaning:
mark-free, powerful, gentle on materials and developed for modern ultrasonic processes.

DEGREASE LINE – Ultraschall-Power against oil and grease

Degreaser – gentle, safe, effective. Ideal for regular cleaning of sensitive components and workpieces. With aluminium protection formula. For users who demand maximum cleaning performance with minimum material stress.

Degrease US Cleaner

A01053-8 Kanister 10 l

Ideal for regular cleaning of sensitive components and workpieces.

- ▶ **DEMULSIFYING -> oil separation capability**
- ▶ **Gentle on materials – with aluminium protection formula**
- ▶ **Long-lasting – perfect for large numbers of heavily soiled components**

Degrease Emulsion US Cleaner

A01053-6 Kanister 10 l

The emulsifying power formula against cooling lubricants, oils and light greases.

- ▶ **EMULSIFYING – Clean removal of components from the cleaning bath**
- ▶ **Low residue – ideal for cleaning before component measurements**
- ▶ **Precise effect with low contamination**

DERUST LINE – More than just ultrasonic derusting.

Whether it's light corrosion or stubborn deposits, the Derust Line brings metal back to its best.

Derust Neutral US Cleaner

A01053-9 Kanister 10 l

The gentle specialist with sustainable corrosion protection for sensitive surfaces.

- ▶ **Effective against rust and limescale on metal workpieces, machine components and tools**
- ▶ **For stainless steel, steel and acid-resistant non-ferrous metals**
- ▶ **Precise action – gentle on materials**

Derust Acid US Cleaner

A01053-7 Kanister 10 l

The powerful solution for fast results.

- ▶ **Effective against rust and limescale on metal workpieces, machine components and tools**
- ▶ **For stainless steel, steel and acid-resistant non-ferrous metals**
- ▶ **Precise action – gentle on materials**

EINSATZBEREICH: Metalworking/CNC, plastics processing, automotive, rail transport, etc.

PARALLEL PLATE SEPARATOR

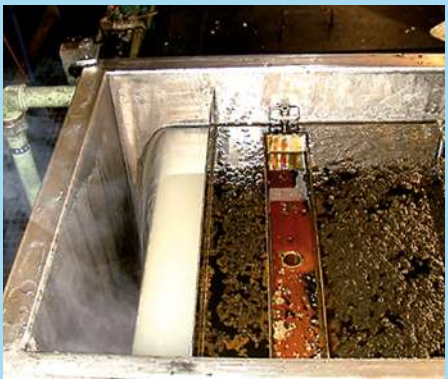
Cost-efficient work

The Parallel Plate Separator (PPT) is a high-performance, cost-efficient device for extending the lifetimes of water-based process baths. **The Parallel Plate Separator (PPT) removes oil, sludge, suspended solids, and sediments from the moving and warm process baths in a highly effective and automatic way while the plant is in operation.**

The PPT operates based on the combined effect of gravitation and coalescence (segregation of components), 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 in cold and warm process baths and in pH ranges from 1 to 14 .







Extraction devices



Thuringia design



Hilti design



HTW design

	PPT MIni	PPT Kompakt	PPT 001	PPT 002	PPT 003
Overall dimensions L x W x H (mm)	295 x 125 x 275	550 x 200 x 1250	745 x 245 x 1250	1100 x 500 x 1250	1400 x 500 x 1250
Flow rate (L/h)	100	200	800	1500	2500
Capacity (m3/h)	1	3	3	5	6
Operating temperature	<100	<100	<100	<100	<100
Operating pressure	any desired	any desired	any desired	any desired	any desired
Material	stainless steel 1.4301	stainless steel 1.4301	stainless steel 1.4301	stainless steel 1.4301	stainless steel 1.4301
Order number	**G11900**	**G11940**	**G11910**	**G11920**	**G11930**

PRODUCT ACCESSORIES:

Work made easy:
your practical helpers for opening containers and transferring fluids.



Tap

H00003 for 5 L and 10 L jerrycans
H00004 for 20 L and 30 L jerrycans
H00015 for 200 L plastic drum, ¾" incl. adapter



Stainless steel hand-operated pump

H00006 for 200 L plastic drum
(discharge 0.3 L hoist) 2" standard drum thread
incl. thread adapter and 1 m hose
H00008-01 Hand-operated pump adapter for 200 L metall drum



Plastic hand-operated pump

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



Jerrycan cap spanner/ bung wrenc

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

Our delivery service (Germany)

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

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

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

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

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

All prices are subject to VAT at the applicable rate.



AS FLEXIBLE AS OUR APPLICATIONS



AS FLEXIBLE AS WE ARE

We are committed to ensuring that you have your soiling under control and that your work processes run smoothly with clean machines, moulds, pipes, hoses, etc.:

- **Through our research and development department**
- **Through our expert staff in the office and in the field**
- **Through our service technicians, who cover the entire German territory and come to your company. They maintain your equipment, depending on the service package, and are there for you on site after making an appointment.**

Oils, greases, rust, limescale, resins, varnish ... the list of **contaminants** is long.

Stainless steel, steel, plastic, aluminium, non-ferrous metals ... the **surfaces** also pose special requirements.

The **areas of application** are just as varied: in parts cleaning, maintenance, pipes, heat exchangers, plastic injection moulds, painting tools and spray guns, CNC machines and more.

The same applies to the industries: metal processing, automotive, plastics processing, transport, traffic, agricultural technology, forestry, food technology, skilled crafts and trades, etc.

BIO-CIRCLE®

A STRONG GLOBAL PARTNER:

BIO-CIRCLE®

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

Bio-Circle Surface Technology GmbH
Berensweg 200 • D-33334 Gütersloh
Phone no.: +49 (0)5241 9443-0
Fax no.: +49 (0)5241 9443-44
Email: service@bio-circle.de
bio-circle.de

bio-circle.com

Present around the globe

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

