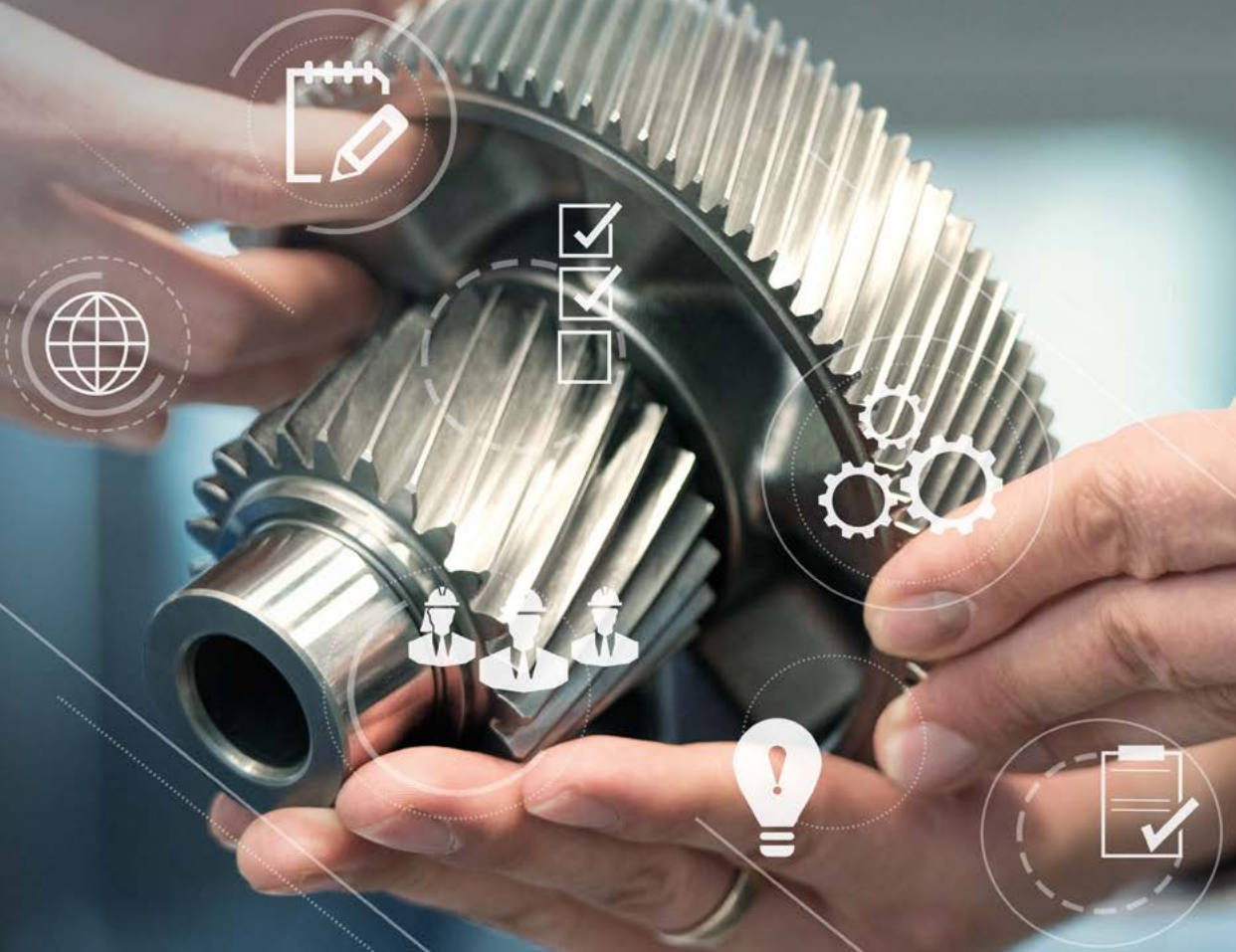


General Industry

# Industrial Parts Cleaning – Flexible and Economical.



**SBS ECOCLEAN GROUP**

**ECOCLEAN UCM MHITRAA**

# Component Cleaning for the General Industry

In general industry, a wide variety of manufacturing processes and materials come together: whether cast, stamped, bent, or deep-drawn parts, machined components, hydraulic and pneumatic components, or additively manufactured workpieces – the variety is vast, and the requirements for technical cleanliness are constantly increasing. To ensure that downstream processes such as coating, bonding, assembly, or heat treatment run smoothly and that components function reliably over the long term, cleaning that meets specific requirements is essential.

The aim is to reliably remove both particulate and film-like contaminants – and to do so under increasingly demanding conditions: high volumes, short cycle times, heavy component weights, and economic pressure.

Ecoclean offers customized, versatile, and energy-efficient cleaning solutions that can be tailored precisely to specific requirements. This allows a wide variety of cleanliness targets to be achieved reliably and economically – or greater quality, efficiency, and future-oriented manufacturing.



## AT A GLANCE

| Parts and components                                                                                                                                                                                                                                                                                                                                                                                                             | Materials                                                                                                                                                                                                                                                                                                                                  | Applications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>■ Transmission and engine parts</li><li>■ Hydraulic and pneumatic parts</li><li>■ Housings</li><li>■ Turned, milled, and drilled parts</li><li>■ Stamped, pressed, deep-drawn, bent, and formed parts</li><li>■ Castings</li><li>■ Pipes</li><li>■ Additively manufactured components</li><li>■ Sealing parts, e.g., sealing rings</li><li>■ Parts for remanufacturing/recycling</li></ul> | <ul style="list-style-type: none"><li>■ Steel and stainless steel</li><li>■ Aluminum</li><li>■ Non-ferrous metals</li><li>■ Other metallic alloys</li><li>■ Die casting</li><li>■ Cast iron</li><li>■ Titanium</li><li>■ Plastics, e.g., elastomers, thermoplastics, thermosets</li><li>■ Composite materials</li><li>■ Ceramics</li></ul> | <ul style="list-style-type: none"><li>■ Pre-cleaning</li><li>■ Intermediate cleaning during production processes, e.g., after mechanical processing, forming</li><li>■ Fine cleaning with cleanliness specifications</li><li>■ Final cleaning before assembly, quality control, and packaging</li><li>■ Integrated cleaning system</li><li>■ Surface activation, e.g., roughening before coating, bonding, sealing</li><li>■ Deburring and cleaning</li><li>■ Cleaning with corrosion protection or passivation</li></ul> |

# System Technology

- Aqueous and solvent-based cleaning systems: single and dual chamber systems, inline immersion systems, special systems
- Aqueous high- and medium-pressure deburring up to 3,000 bar, high-pressure solvent cleaning
- Combined processes: Cleaning with plasma, laser, or CO<sub>2</sub> — also in combination with wet processes
- Flexible process engineering and goods movement: spraying, dipping, pressure flooding, injection flood washing (IFW), ultrasound (including mixed frequencies), vacuum-based Pulsated Pressure Cleaning (PPC), as well as turning, swivelling and oscillating
- Efficient drying technologies such as vacuum and hot air drying — tailored to the medium and component
- Media preparation and process integration including distillation, evaporation, filtration, and deionized water treatment
- Surface treatment and automation: Pulsating water jet, laser processing, and semi- and fully-automated goods transport systems



# Economical and Sustainable Parts Cleaning for Every Need

Our comprehensive range offers solutions for almost all cleaning tasks – for metal, plastic, and glass parts. From coarse to intermediate to fine cleaning, our systems not only ensure improved cleaning quality and greater process reliability, but also cost and resource savings in your production. For the safe and economical removal of oils, greases, emulsions, and chips. Whether you need a standard system, a modular configurable system, or a customized special solution, our portfolio covers a wide range and can be flexibly adapted to your individual requirements and production processes.



Further information on the topic of industrial component cleaning can be found in the knowledge database on our website.

# Cleaning Solutions that Prove Themselves

Industrial component cleaning is as diverse as the industries that require it. In order to develop tailor-made and economically viable solutions, Ecoclean combines in-depth technological expertise with comprehensive application experience gained from numerous projects – from large corporations to medium-sized companies. In our modern test centers, we conduct practical cleaning tests with parts contaminated with real-world contaminants. All relevant parameters such as material, geometry, type of contamination, cleanliness requirements, and throughput are included in the analysis. The result: customized, sustainable cleaning concepts – including automation on request.



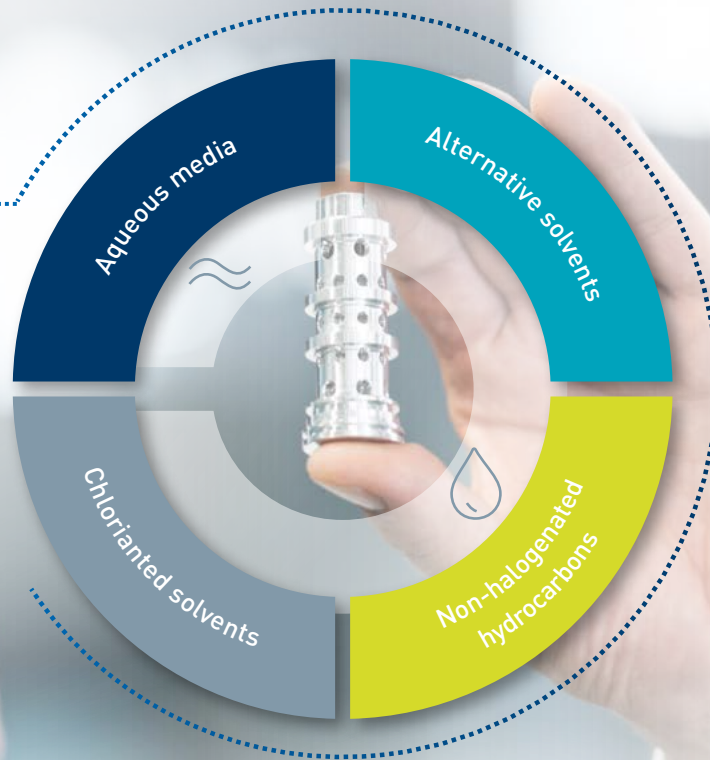
Insights into our Test Centers (video)

## CLEANING MEDIA



## PROCESSES

- Vapour degreasing
- Spray cleaning
- Immersion cleaning
- Injection flood washing
- Ultrasonic cleaning
- Ultrasound Plus
- Vacuum-based cleaning with Pulsated Pressure Cleaning (PPC)
- Plasma cleaning
- Dry cleaning



# Cleaning as a Service – Efficient and Compliant with Standards

Technical cleanliness is a decisive factor for the function and quality of industrial components. With over 60 years of experience, Ecoclean is one of the leading experts in parts cleaning. Our expertise in the development and implementation of modern cleaning processes forms the basis for customized contract cleaning services – tailored to your specific requirements.

Thanks to our comprehensive process know-how and wide range of equipment, we achieve highest cleanliness results – always in compliance with applicable industry standards. Whether for downstream manufacturing steps or directly for your end customers, we ensure that your components meet the required quality standards.

We offer our Contract Cleaning Services locally at our global Test Centers.



Insights into our Contract Cleaning Services (video)

## Our Locations Worldwide



### CONTACT

**Our Experts for Industrial Parts Cleaning**

[sales.filderstadt@ecoclean-group.net](mailto:sales.filderstadt@ecoclean-group.net)

Phone +49 [0]711 7006-0

[www.ecoclean-group.net](http://www.ecoclean-group.net)

**ECOCLEAN UCM MHITRAA**