

Compact Solution.
Highest Cleaning Efficiency.

EcoCompact



ECOCLEAN
technology that inspires

Part Cleaning as a Value-Adding Process

Increasing demands on cleanliness in component manufacturing impose a need for flexible system technology, optimized in terms of energy and costs. Ecoclean meets relevant industry quality standards and cleaning objectives with its individually configurable part cleaning systems – whether the aim is to clean mass-produced items in bulk, precision parts arranged in defined position, or large-size components made of metal, plastics or ceramics.



➤ No matter if it is bulk goods such as turning or stamping parts or precision components – with the EcoCcompact you achieve economical as well as reliable cleaning results at any time

By combining diverse cleaning and drying methods, specifications on part quality and throughput can be fulfilled regardless of your specific industry or activity. Ecoclean offers customer-focused, forward-looking solutions which take into account the entire process chain including chemistry, processes, equipment and instrumentation.

Innovative technology, continuous product improvement and a customer-oriented advisory and planning competence, backed by a global service network, are the hallmarks of Ecoclean and characterize our cleaning

solutions. The well-conceived and flexible equipment design relying on the use of high-grade components guarantees a superior level of availability and process reliability in your production environment.

As highly effective cleaning media, non-halogenated hydrocarbons allow safe and economical use of solvents for removing oils, greases, emulsions and swarf between or after manufacturing processes. Both small factories, with comparatively low production capacities and large factories, with decentralized cleaning stations, benefit from the sophisticated technology of the EcoCcompact.

The compact solution for economical and reliable solvent cleaning

The EcoCcompact is a single-chamber cleaning system for industrial parts cleaning and preservation with non-halogenated hydrocarbons and modified alcohols operating under full vacuum. It offers a high cleaning quality at short cycle times combined with a maximum of flexibility for diverse cleaning tasks. With its flexible modular system (from 1 to 3 tank version) the EcoCcompact is easily adapted to individual customer needs. The system is therefore suitable for a broad application range from rapid degreasing up to demanding cleaning operations in compliance with exacting cleanliness specifications.

Offering a choice of two different work chamber sizes the system enables you to make-up your individual specific batches. Therefore per-unit product costs are minimized. For your EcoCcompact machine, Ecoclean offers an extensive range of options which are individually selectable to suit your requirements.

➤ The EcoCcompact is suitable for a broad range of application from rapid degreasing up to demanding cleaning operations in compliance with exacting cleanliness specifications



+ Flexible application options: for various applications from preliminary and intermediate to final cleaning as well as preservation.

+ Forward looking technology: suitable for operation with non-halogenated hydrocarbons and modified alcohols for changing production conditions.

+ Reduced per-unit product costs: through volumetrically optimized batch make-up at high throughput rates.

+ Enhanced parts cleanliness: improved fluid management and frequency-controlled flooding process.

+ User-friendly operation: HMI operator panel for real-time monitoring of all system states, fault diagnostics and service intervals notification, supports industry 4.0.

+ Ease of maintenance: smart compact construction facilitates accessibility while having a small footprint.

+ Customer-specific features: over 40 different options for configuration in the basic version.

Ecoclean demonstrates its commitment to the efficient and careful use of resources. Thanks to their energy- and cost-optimized design, our cleaning systems will reduce your process, material and per-unit product costs in a sustainable manner.

Your Benefits

+ EFFICIENCY

- High throughput thanks to an optimized process technology and efficient washing mechanisms
- Automatic oil discharge into external collection tanks, used oil with a reduced solvent content and recycling of costly special oils for reuse possible
- Vacuum distillation for ideal solvent treatment
- Plug & Play Solution: complete commissioning and customer acceptance before delivery

+ FLEXIBILITY

- The combination filter housing supports the use of bag or cartridge-type filters, bypass filtration, possible double filtration and straightforward, fast filter replacement
- Preservation with second or additional third fully integrated flood tank
- Customer-specific configuration for an individually designed system thanks to various options
- Short delivery times, different renting as well as hire purchase models are possible



+ QUALITY

- Complies with high standards for technical parts cleanliness
- Targeted cleaning with frequency-controlled rotary drive and parts positioning
- Double solvent filtration during filling and emptying of working chamber
- Optimized fluid management

+ SAFETY AND ENVIRONMENT

- Redundant safety concept
- Complies with all recent standards and laws
- Environmentally-friendly and energy-efficient system technology, operation almost totally emission free, low solvent consumption
- Minimized energy input due to heat recovery and distillation unit

Straightforward and Safe Operation

Our HMI control panel provides full view of all process parameters. Its intuitive user interface allows for easy and safe operation of the system. Integrated real-time monitoring ensures that all system states are transparently mapped.

- Self-explanatory buttons
- Integrated part visualization supports continuous process tracking (real-time monitoring) and optimized machine maintenance
- Straightforward, fast fault diagnostics
- Display of equipment information relevant for service purposes
- Technical and graphic display of all system states directly in the HMI control panel
- Automatic pressure and temperature control for easy operation, increased process reliability and effective validation of cleaning results
- PLC controller (Siemens) with PROFINET for highly flexible Ethernet interfacing

Modern system operation and maintenance with Remote Service

The newly developed Remote Service platform allows our experts a temporary and safe remote access to your cleaning system. Errors and software updates are resolved or executed directly online.

Your benefits

- Fast and clear identification of errors and disruptions
- Reduction of downtimes
- Reduced maintenance costs due to no travel expenses
- Higher process reliability and production availability



➤ Intuitive user interface

➤ Safe and easy system operation

➤ Real-time monitoring ensures that all system states are transparently mapped



EcoCompact – at a Glance

Hardware and processes*

- Single-chamber vacuum cleaning system for industrial parts cleaning with non-halogenated hydrocarbons and modified alcohols
- Vacuum process for cleaning, distillation and drying, filling/emptying with integrated vacuum technology, enhanced drying, intermediate drying for complex part geometries
- Multiple monitoring of safety-relevant temperatures and pressures in the tanks
- Heat recovery
- Multi-stage cleaning process
- Pre-vapor degreasing/pre-spraying with filter
- Combinable cleaning processes: spray cleaning, immersion/injection flood washing, ultrasonic cleaning
- Second flood tank may be used for cleaning or preservation, optional third flood tank for preservation
- Frequency-controlled flooding pumps allow for an ideal solvent perfusion within the working chamber
- Selectable water or air cooling
- Optimized footprint considering ease of maintenance aspects

Work chamber*

- Vacuum-tight work chamber
- Roll-over unit for optimum cleaning fluid access in spraying and flooding processes provides product rotation (360 °) about the horizontal axis
- Fixed or optional automatic basket closing device
- Rotating and rocking action: accurate part positioning in front of the nozzles is ensured by a frequency-controlled rotary drive for pinpoint precision in cleaning and drying

Fluid treatment*

- Powerful, energy-efficient continuous distillation for fluid treatment, includes indirect electrical heating unit for a solvent preserving distillation
- Highly effective and individually adaptable filtration
- Double full-flow filtration, bypass filtration
- Operation with bag or cartridge filters
- Automated oil discharge to reduce system downtime
- Magnetic inserts
- Automatic dosing system for preservation
- Sampling

Local competence worldwide

As a worldwide market and technology leader, we are present at production sites in 9 countries where we also operate our own test centers and laboratories. The Ecoclean Academy offers practical seminars and trainings either at our locations or in-house at our customers site. With an expertise spanning all aspects of industrial parts cleaning and the ability to deliver fast after-sales service, we operate on a global scale while remaining close to our customers.

Load size and weight*

Work chamber size 1

- 1 basket 530 x 320 x 200 mm
- 1 basket 480 x 320 x 200 mm
- 2 x Novel baskets with adaptor
- 2 baskets 375 x 220 x 200 mm
- Up to 80 kg load weight

Work chamber size 2

- 1 basket 530 x 320 x 250 mm
- 1 basket 480 x 320 x 250 mm
- 4 x Novel baskets with adaptor
- Up to 80 kg load weight

* List comprises equipment variants including options

Technical data

SYSTEM DIMENSIONS

Width	4,000 mm
Depth	1,600 mm
Height	2,700 mm
Loading level (approx.)	900 mm

BASKET DATA

Length	530 mm
Width	320 mm
Max. height	Size 1 = 200 mm, Size 2 = 250 mm

LOADS

Max. load weight	80 kg
Throughput	approx. 12 loads/h

CONNECTED LOAD

Electrical connected load	3 x 400 V/50 Hz
Total connected load	approx. 36–45 kW depending on equipment

OPERATING TEMPERATURE

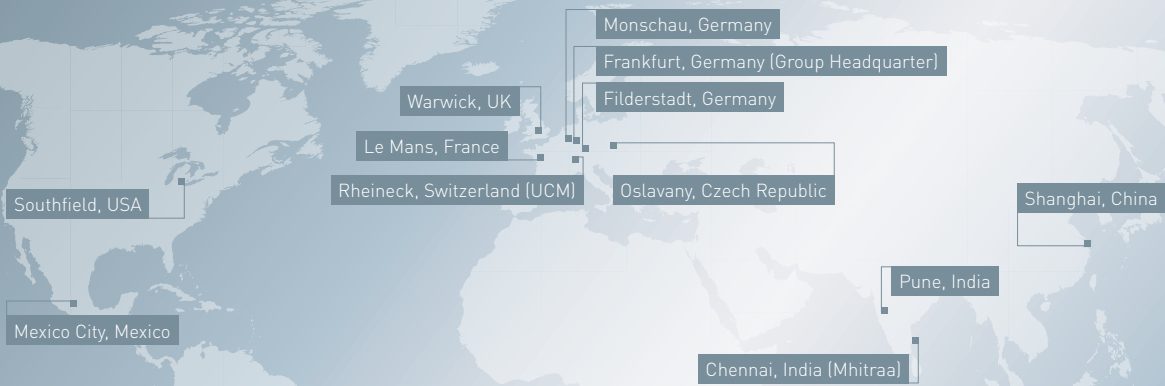
Clean, rinse and preserve	50–80°C
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CAPACITY OF STANDARD SYSTEM

Per flood tank	approx. 280 l
Distillation unit	170 l
Distillation performance	approx. 70 l/h



Our Locations Worldwide



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