# Compact Solution. Highest Cleaning Efficiency.

## EcoCcompact | EcoCcompact L | EcoCompact XL



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.



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No matter if it is bulk goods such as turning or stamping parts or precision components – with the EcoCcompact, EcoCcompact L and XL you achieve economical as well as reliable cleaning results at any time. Customized to your individual needs.

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, EcoCcompact L and XL.

#### The compact solution for economical and reliable solvent cleaning

The EcoCcompact, EcoCcompact L and XL is a singlechamber 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 (various sizes and 2- to 3-tank versions) the EcoCcompact product family 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, EcoCcompact L or XL machine, Ecoclean offers an extensive range of options which are individually selectable to suit your requirements.

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#### + 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.
- Needs-based application: EcoCcompact L and XL systems offer a wide range of options to meet individual requirements.
- ← Ease of maintenance: smart compact construction facilitates accessibility while having a small footprint.
- Customer-specific features: various different options for configuration in all versions.

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
- EcoCcompact L: by selecting the medium working chamber, throughput can be increased by using the larger standard basket or two small standard baskets per batch.
- EcoCcompact XL: by selecting the larger working chamber, product throughput can be significantly increased with the larger standard basket or four small standard baskets per batch.

#### + FLEXIBILITY

- The combination filter housing supports the use of bag or high-performance filters, bypass 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
- EcoCcompact L: individual choice of working chamber size (on request)
- EcoCcompact XL: individual choice of flood pumps



#### 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

Our 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





## EcoCcompact – 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 high-performance filters
- Automated oil discharge to reduce system downtime
- Magnetic inserts
- Automatic dosing system for preservation
- Sampling

#### Load size and weight\*

#### EcoCcompact

- 1 basket 520 x 320 x 200/250 mm
- 1 basket 470 x 320 x 200/250 mm
- 4 x Novel baskets with adaptor
- Up to 80 kg load weight

#### EcoCcompact L

- More powerful distillation
- Continuous oil discharge in basic unit
- Enlarged working chamber
- 1 basket 650 x 470 x 300 mm
- 2 baskets 520 x 320 x 200 mm next to each other
- 2 baskets 470 x 320 x 200 mm next to each other
- Up to 150 kg load weight

#### EcoCcompact XL

- More powerful distillation
- Continuous oil discharge in basic unit
- Enlarged working chamber
- 1 basket 650 x 470 x 400 mm
- 4 baskets 520 x 320 x 200 mm next or on top of each other
- 4 baskets 470 x 320 x 200 mm next or on top of each other
- Up to 150 kg load weight

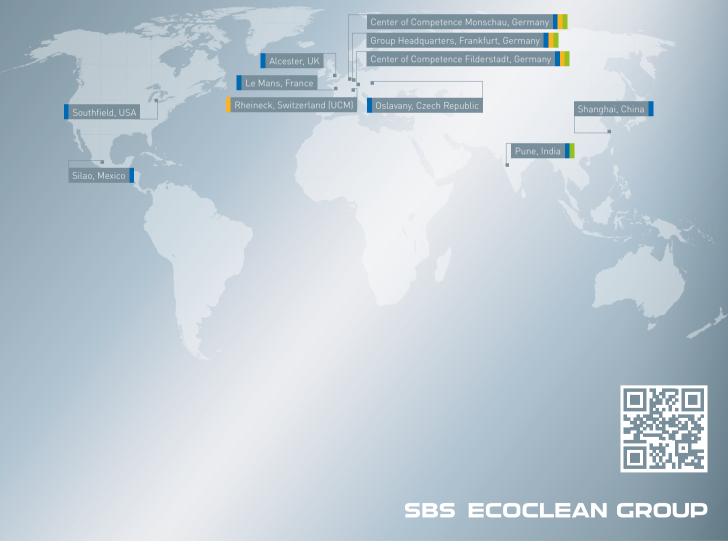
\* List comprises equipment variants including options

#### **Technical Data**

SYSTEM DIMENSIONS	EcoCcompact	EcoCcompact L	EcoCcompact XL
Width	3,200 mm	4,100 mm	4,400 mm
Depth	1,600 mm	1,900 mm	2,100 mm
Height	2,450 mm (incl. machine roof)	2,650 mm (incl. machine roof)	2,700 mm (incl. machine roof)
Loading level (approx.)	ca. 800 mm	ca. 850 mm	ca. 850 mm
BASKET DATA			
Length	520 mm	650 mm	650 mm
Width	320 mm	470 mm	470 mm
Max. height	250 mm	300 mm	400 mm
LOADS			
Max. load weight	80 kg	150 kg	150 kg
Throughput	up to 10 loads/h	up to 8 loads/h	up to 7-8 loads/h
CONNECTED LOAD			
Electrical connected load	3 x 400 V/50 Hz	3 x 400 V/50 Hz	3 x 400 V/50 Hz
Total connected load	max. 24 kW	max. 35 kW	max. 45 kW
OPERATING TEMPERATURE			
Clean, rinse and preserve	50–70°C	50 – 70°C	50 – 70°C
CAPACITY OF STANDARD SYSTEM			
Per flood tank	ca. 160 l	ca. 305 l	ca. 400 l
Distillation unit	max. 100 l	max. 400 l	max. 400 l
Distillation performance	max. 60 l / h	max. 180 l / h	max. 180 l/h



# Our Locations Worldwide



www.ecoclean-group.net