# TOTAL SUPPLIER FOR FILTRATION, EVAPORATION AND WASHING SYSTEMS

With the environment in mind

Corporate group by



CL-SERIES COMBI-SERIES SILENT SONIC MAXI-SERIES MAXILINE ATB / ARH WETBLASTER TOPLOADER FRONTLOADER BELTLINE ROTOLINE FILTRATION SYSTEM ATEX SYSTEM ACCESSORIES





ENVOTHERM

# **CL-SERIES**

# **COMBI-SERIES**

High quality ultrasonic cleaner with a high ultrasonic effect for reliable parts cleaning every day. Suitable for many tasks.

## Analogue display

- Setting of time 0-60 min.
- Setting of temperature 0-80°C
- Standard frequency 40 khz

## Digital multifunction display

- Setting of time and temperature
- Powerfunction setting of frequency and watt-usage
- Multifrequency, Choose betweem 21,5 or 40 khz

## Available options:

- Stainless steel baskets
- Basket covers
- Fixtures
- Weekly timer





MODEL	CL100	CL150	CL300	CL600
Volume	4,0 L	5,7 L	16 L	25 L
Tanksize (LxWxH)	245x135x140 mm	300x140x140 mm	325x300x190 mm	500x300x190 mm
Basket-size	190x100x120 mm	245x110x120 mm	250x245x150 mm	450x250x150 mm
Outside dimensions	300x170x300 mm	370x180x300 mm	420x330x420 mm	600x330x420 mm
Ultrasonic effect	160W	240W	320W	640W
Frequency	21,5 / 40 Khz			
Temperature	0-80°C	0-80°C	0-80°C	0-80°C
Power supply	220/240V, 50 hz.	220/240V, 50 hz.	220/240V, 50 hz.	220/240V, 50 hz.

This is our basic ultrasonic cleaning system, which is manufactured as a single- and multistage machine depending on the cleaning application.





# **SILENT SONIC**

Top-class ultrasonic cleaner, where quality, working environment and cleanliness go hand in hand. This is one of the quietest ultrasonic cleaners on the market.

It has been developed and produced in Denmark to meet even the strictest requirements in degreasing and cleaning items. Supplied as standard with an electric agitation, which moves the items up/down during the washing process and automatically moves to the surface after the washing process is finished

# Highlights

- The noise level is 30% lower than traditional ultrasonic cleaners
- User-friendly full electric agitation of the basket
- Low energy consumption and energy monitoring
- Week clock for heating control
- Smart touchscreen

# Modules

- Ultrasonic cleaning
- Flush tank
- Turbulence tank
- Flush tank
- Hot air drying
- Vacuum drying

# Extra options

- Filter systems
- Oil separator
- Automatic water filling
- Intelligent chemical dosing
- Automatic emptying
- pH and conductivity meter







Touch Screen



Oscillation of basket/parts





# MAXILINE

This is our fully automatic in-line ultrasonic cleaning system tailored for customer needs. It's a multistage heavy-duty cleaning system designed for around-the-clock operation.

## Available standard modules:

- Ultrasonic cleaning
- Venturi jet-nozzle turbulence
- Spray washing chamber
- Rinsing with air-bubble turbulence
- Hot air-drying tank
- Vacuum drying

## Available options:

- Filtration system
- Automatic chemical dosing
- Oilskimmer with belt
- Oilseparator
- Extraction fan
- Agitation / oscillation
- Transport trolley
- Automatic conveyor systems for loading- and unloading

MODEL	MAXILINE 530	MAXILINE 600	MAXILINE 670
Tank volume (pr. zone)	150 l	220 l	300 l
Ultrasonic effect (pr. zone)	2,0 kW	3,0 kW	4,0 kW
Ultrasonic frequency kHz	25 or 40	25 or 40	25 or 40
Basket loading max.	50 kg	75 kg	100 kg
Basket size (external)	521x321x200 mm	608x408x300 mm	651x469x300 mm
Cleaning height max.	200 mm	300 mm	300 mm
Temperature °C	30 - 85	30 - 85	30 - 85
Heating effect (pr. zone)	4 kW	6 kW	8 kW
Drying power	2.20 kW	2.20 kW	2.20 kW
Temperature drying °C	40 - 110	40 - 110	40 - 110





### Vacuum drying

Maxiline is available with vacuum drying systems when you need a fast and reliable drying system for complex parts. It's possible to dry even large complicated parts in less than 3 minutes with our vacuum solutions.

# With the environment ingmind...



## Touchscreen and process overview

All our automated cleaning systems is including Siemens PLC with touchscreen providing you a complete overview of the process, alarm information and making it possible to adjust each process parameter.

# **MAXI-SERIES**

# ATB/ARH

This is our heavy-duty industrial ultrasonic cleaning system, that includes several standard options. Its ideal for workshops, tools cleaning and metal industry.

## Available standard modules:

- Ultrasonic cleaning
- Venturi jet-nozzle turbulence
- Rinsing with air-bubble turbulence
- Hot air-drying tank
- Vacuum drying

### Available options:

- Filtration system
- Automatic chemical dosing
- Oilskimmer with belt
- Oilseparator
- Extraction fan
- PLC/HMI with 7" touchscreen
- Transport trolley



This is our simple and low-cost washing module with conveyor. Its a very compact and flexible solution, which is easy to implement.



Stainless steel manual spraying cabin with high-pressure cleaning at 80 bar which effectively cleans the parts from oil, grease and dirt.

The right solution for workshops and manufacturing companies for maintenance and repair of tools and components. The heated liquid with environmentally friendly soap combined with the high-pressure pump gives a great result.

The machine is including heating, temperature setting and level sensor in a stainless steel cabin. Inside the cabin, it is equipped with a high-pressure gun, window cleaning and a compressed air gun to blow off the parts.



# With the environment in mind...

The spraywashing system is designed for simple applications where only a washing module is necessary, which is mostly for washing of parts between steps in the manufacturing process. Its an ideal solution for example washing before welding of steel parts, or before assembling depending on the cleanliness requirements.

# Available modules

• Spray washing

# Extra options

- Filtration system
- Automatic chemical dosing
- Extraction fan
- Automatic waterfilling
- Oilseparator





# WETBLASTER

Wetblaster with glass and plastic powder and hot water for surface finnishing / cleaning. Delivered in a complete stainless steel cabinet including stainless steel pump and heater.

The ergonomic design with a door that opens in the front, makes it easy for the operator to operate without having to load the parts into the machine from the sides.

The wetblaster is available with a stainless-steel drip tray and galvanized grate, as well as a continuous cleaning of the window via compressed air for better visibility. In addition, it has a built-in level sensor for protection of the pump and a water gun for rinsing the parts after water polishing.









# TOPLOADER

This is our spray washing system which is highly efficient and economic, and includes a lot of standard equipment which makes it very attractive.



# WASH

First we have a spray washing cycle which is cleaning the parts with detergent and water inside the chamber using the piping system connected to the washing tank on the backside.

# RINSING

Secondly we have a spray rinsing cycle using hot water to remove chemical and other residues to ensure a high cleanliness level by using the separated piping system, pump and rinsing tank.

# With the environment in mind...



# DRYING

Highly efficient channel blower connected to air knives are blowing the parts inside the chamber while the basket is rotating to ensure efficient drying when the washing and rinsing process is finished.

# FRONTLOADER

This is our spray washer for heavy-duty parts with a pneumatic front cover. Its a very compact and reliable cleaning system for a wide range of applications.



300 l/min

2.5 - 3.2 bar

950 kg

63A

8 bar

500 l/min

4 - 5 bar

1500 kg

80A

8 bar





Two-tank system

Rotary spray system





Pump flow

Pump pressure

Machine weigth

Power supply

High pressure air

200 l/min

2.5 - 3.2 bar

750 kg

32A

6 bar

250 l/min

2.5 - 3.2 bar

830 kg

63A

6 bar

From 400 – 2000 kg capacity

# BELTLINE

This is our high quality in-line cleaning system with conveyor. Its designed in modules and are customized to meet customer requirements.

The Beltline cleaning system is designed for manufacturing around-the-clock and is the ideal solution for implementation directly into the production line.





- ✓ Integrated energy-surveillance module Including a specially developed energy surveillance module, where you can monitor electrical, water and high pressure air consumption.
- ✓ Siemens S7-1200 PLC control Control panel Siemens S7-1200 PLC and a 7" touchscreen and process visualization.
- ✓ Designed in modules

Available with as many modules as the customer require depending on the application.

- ✓ Integrated stainless steel coarse filter Middle-plate including stainless steel coarse filter 400 micron.
- ✓ Frequency regulated belt

Belt speed can be regulated by a frequency setting via the touchscreen.

✓ Neutral zone

Integrated 500 mm neutral zone between each module to reduce cross-contamination. The neutral zone is available with a blower.

√ Insulated

Insulated stainless steel cabinet. Insulation thickness: 30 - 50 mm.







Cooling after cleaning



# ROTOLINE

This is our rotating basket system designed for high precision cleaning of complex parts. Its designed in modules and customized to meet customer requirements.





FILTRATION

and operate.

We offer a wide range of filter housings in stainless steel for both filterbags- and cartridges.

Central filtration system. Reduce your operating costs signifcantly.

The Rotoline cleaning system is a powerful and robust solution for complex parts, like hydraulic blocks, moulding tools etc.

Its available as a manual or fully automated solution with conveyor system according to customer requirements.

# Extra options:

- Filtration system
- Oilseparator
- Automatic chemical dosing
- Customized conveyor systems
- Extraction fan
- pH- and conductivity meter
- Baskets and fixtures



# With the environment in mind...

High quality band filter designed for large volumes and heavy-duty contamination.

Transportable cleaning filtration unit. Easy to connect

FILCO



# **ATEX SYSTEM**

# ACCESORIES

We are specialists in delivering ATEX-zone 2 cleaning systems used for hazardous liquids and our standard system is available with both washing, rinsing and drying in an automatic and manual version.

This system is cleaning the parts with ultrasonic cleaning and can be used for solvents and alcohols with a flash point down to 12°C.

## ✓ ATEX ZONE 2

The ultrasonic cleaner is designed for liquids with a low flash point that creates an explosive atmosphere.

√ 100 % stainless steel construction The ultrasonic cleaner is with electro-polished

stainless-steel surface in the work area and cabinet in brushed stainless steel.

✓ Raised immersibles

The ultrasonic cleaner has raised transducers which are placed 100 mm above the tank bottom to prevent soils from disturbing the ultrasound.

### $\checkmark$ Air turbulence in rinsing

The rinsing tank is with a stainless-steel pipe mounted in the bottom of tank for creating turbulence with high pressure air.



## ✓ Pressure monitoring of nitrogen

Unique pressure monitoring of the nitrogen connection ensuring constant low consumption and eliminating the risk of forming an explosive atmosphere during operation.

### ✓ Double fan system

The system is equipped with 2 fans in the event of a breakdown which reduces the risk of creating an explosive atmosphere.

### ✓ Basket holder

Safe and user-friendly holder for the baskets inside the work area so that the baskets do not lie around the machine.



**Oil separators** 



## Stainless steel filter housing



### Cleaning chemicals



Hydrostatic band filters



Filter bags



# With the environment in mind...

### Fixtures and holders

Automatic chemical dosing pumps



### Baskets

### Conveyor systems

### Steam condensation units

