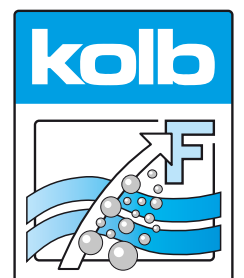# Product Catalog

2024

Cleaning Systems

kolb

PCBA CLEANING

Reliable cleaning of PCBAs, power electronics and DCBs with increasingly complex physical structures is a significant factor for a profitable production.
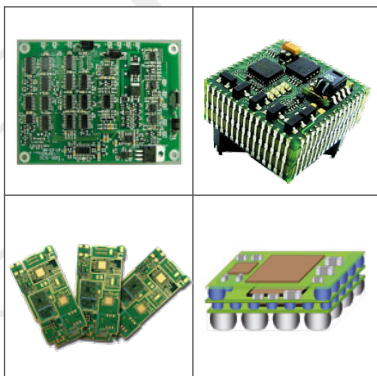
It is not only a necessary prerequisite for reliable varnishing and embedding and thus consequently climatic safety / leaking current safety. It also helps to eliminate mistakes and thereby preserves the value of mounted PCBs and ensures the optical quality of electronic components.

PROCESS RELIABILITY MEANS

The AQUBE® L-Series

The systems of the **kolb** AQUBE® L series offer process safe fine cleaning for **PCBs, SiPs, HDI boards, hybrids and misprints** from contaminations such as fluxes, copper, Cu oxides and aggressive solder-support substances. AQUBE® L systems clean up to 540 (8.6 m²) eurocards in up to three variable horizontal drawer baskets (relative cleaning time per board: approx. 6.5 seconds). The two tank systems with three separate circuits and a fully automatic up to 4step process (1. Cleaning, 2. Rinsing (tap water), 3. DI-rinsing with continuous DI-water processing, 4. Drying) are extremely compact delivering best cost of ownership value.

The main features of the AQUBE® L-Series:

- Two tank systems with three circuit function
- PowerSpray® (Spray-in-air) high volume & pressure technology
- Intelligent network connectivity for smart factories
- Remote control & remote service
- Relative cleaning time of one eurocard: 10 sec. (LH7)
- Process and service intervals PLC controlled
- Event issuing and software control via 10" HR touch screen
- Cleaning up up to 80 °C
- ClosedLoop re-processing of cleaning and rinsing fluid
- Automatic adjustment of rinse water and ionic residues quality
- Traceability "Basic" or "Comfort" option

AQUBE® LH5

▪ PRODUCT DETAILS

- Process chamber dimensions: W 540, D 590, H 570 mm
- Standard capacity: up to 176 (2.8 m²) eurocards
- Volume Tank A: 55 l (Cleaning)
- Volume Tank B/C: 35 l (Tap- & DI- / DM-water rinsing)
- PolyPower® Technology
- VMH® TurboDigital hot air evaporative drying
- Control range drying: approx. 45 - 120 °C
- Footprint: 840 x 1,180 mm
- Empty Weight: 350 kg

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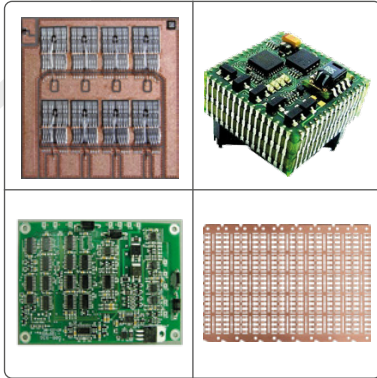
OPERATION EFFICIENCY

AQUBE® LH7

PRODUCT DETAILS

- Process chamber dimensions: W 710, D 720, H 700 mm
- Standard capacity: up to 540 (8.6 m²) eurocards
- Volume Tank A: 55 l (Cleaning)
- Volume Tank B/C: 35 l (Tap- & DI- / DM-water rinsing)
- PolyPower® Technology
- VMH® TurboDigital hot air evaporative drying
- Control range drying: approx. 45 - 120 °C
- Footprint: 1,2000 x 1,340 mm
- Empty Weight: 480 kg

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The AQUBE® X-Series

The **kolb** AQUBE® X-series offers market-leading process design for the cleaning of complex and valuable **DCBs, HDIs PCBAs** and **Leadframes** from reflow flux residues, resin, copper, oxide and soldering support substances. Various chamber sizes, different rotor configurations and drying technologies always provide the best solution for every demand. The German engineered and manufactured systems of the AQUBE® X- series operate in a fully automatic 5step process: Cleaning, MediumWipe®, rinsing (tap water), DI-water rinsing and VMH® TurboDigital evaporative drying. All systems are pre-equipped for efficient water recycling and / or disposal (see page 17, 18) modules.
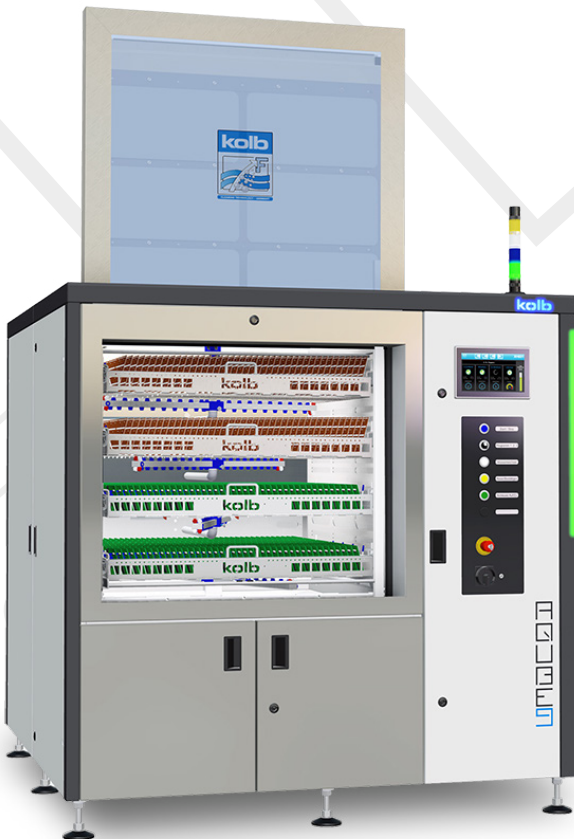

The main features of the AQUBE® X-Series:

- Three tank systems with up to five circuits function
- PowerSpray® (Spray-in-air) high volume & pressure technology
- Intelligent network connectivity for smart factories
- Remote control & remote service
- Relative cleaning time of one eurocard: 6.5 sec. (XH9)
- Process and service intervals PLC controlled
- Event issuing and software control via 10" HR touch screen
- Cleaning up to 80 °C
- ClosedLoop re-processing of cleaning and rinsing fluid
- Automatic adjustment of rinse water and ionic residues quality
- Traceability "Basic" or "Comfort" option

THE BEST WAY TO CLEAN

AQUBE® XH9

PRODUCT DETAILS

- Process chamber dimensions: W 900, D 955, H 970 mm
- Standard capacity: up to 830 (19 m²) eurocards
- Volume Tank A: 100 l (Cleaning)
- Volume Tank B: 125 l (Tap-water rinsing)
- Volume Tank C: 100 l (DI- / DM-water rinsing)
- PolyPower® Technology
- VMH® TurboDigital hot air evaporative drying
- Control range drying: approx. 45 - 120 °C
- Footprint: 1,700 x 1,850 mm
- Empty Weight: 922 kg

Get more info

AQUBE® XH5

PRODUCT DETAILS

- Process chamber dimensions: W 540, D 590, H 570 mm
- Capacity: up to 176 (2.8 m²) eurocards
- Volume Tank A: 55 l (Cleaning)
- Volume Tank B: 35 l (Tap-water rinsing)
- Volume Tank C: 35 l (DI- / DM-water rinsing)
- PolyPower® Technology
- VMH® TurboDigital hot air evaporative drying
- Control range drying: approx. 45 - 120 °C
- Footprint: 840 x 1,180 mm
- Empty Weight: 350 kg

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POWER ELECTRONICS

AQUBE® XH7

▪ PRODUCT DETAILS

- Process chamber dimensions: W 710, D 720, H 700 mm
- Capacity: up to 540 (8.6 m²) eurocards
- Volume Tank A: 55 l (Cleaning)
- Volume Tank B: 45 l (Tap-water rinsing)
- Volume Tank C: 85 l (DI- / DM-water rinsing)
- PolyPower® Technology
- VMH® TurboDigital hot air evaporative drying
- Control range drying: approx. 45 - 120 °C
- Footprint: 1,200 x 1,340 mm
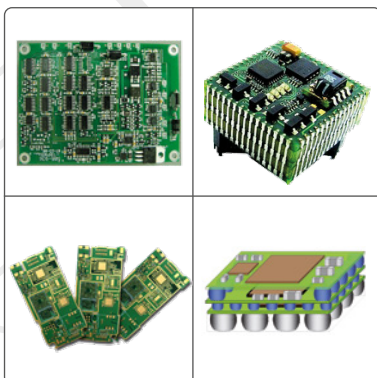- Empty Weight: 480 kg

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The PSE Economy Line

The **kolb** PSE economy line is a quality series of advanced cleaning systems, which focuses on all essential criteria for a qualified cleaning process and therefore stands for attractive purchase prices. **kolb** PSE systems benefit from established components and technologies of the AQUBE® high-end line, which have successively become the standard. They are available for **PCBA, HDI** and **Leadframe** cleaning as well as for **printer screens and stencils** and also **production tools** cleaning. All systems are engineered and manufactured in Germany and operate in a fully automatic up 4step process: Cleaning, rinsing (tap water), DI-water rinsing and VMH® hot air evaporative drying.

REAL WORKHORSES

The PSE L-Series

The **kolb** PSE L-series offers solid and compact batch cleaners, fully equipped for the ultra-fine cleaning of **PCBA components**, **hybrids**, **misprints** (mounted or bare boards) etc., representing a serious part of the value added chain. Their horizontal rotor systems with asynchronous pressure spray-nozzles prevents spray shadows / dead spots and ensuresthorough cleaning even of micro-dirt. 100 freely selectable programs make them very efficient for different PCBA cleaning requirements.
.

The main features of the PSE L-Series:
- Two-tank combi systems with three circuits function
- PowerSpray® (Spray-in-air) high volume & pressure technology
- Relative cleaning time of one eurocard: 10 sec. (LH7)
- Process and service intervals PLC controlled
- Event issuing and software control via 7" HR touch screen
- Cleaning up to 80 °C
- ClosedLoop re-processing of cleaning and rinsing fluid
- Automatic adjustment of rinse water and ionic residues quality
- Exhaust air and vapor extraction unit as standard
- Traceability "Basic" option

PSE LH5

PRODUCT DETAILS

- Process chamber dimensions: W 540, D 590, H 570 mm
- Capacity: up to 176 (2.8 m²) eurocards
- Volume Tank A: 55 l (Cleaning)
- Volume Tank B/C: 35 l (Tap- & DI- / DM-water rinsing)
- PolyPower® Technology
- VMH® hot air evaporative drying
- Control range drying: approx. 70 - 90 °C
- Footprint: 840 x 1,180 mm
- Empty Weight: 350 kg

Get more info

FOR PCBA CLEANING

PSE LH7

PRODUCT DETAILS

- Process chamber dimensions: W 710, D 720, H 700 mm
- Capacity: up to 540 (8.6 m²) eurocards
- Volume Tank A: 55 l (Cleaning)
- Volume Tank B/C: 35 l (Tap- & DI- / DM-water rinsing)
- PolyPower® Technology
- VMH® hot air evaporative drying
- Control range drying: approx. approx. 70 - 90 °C
- Footprint: 1,200 x 1,340 mm
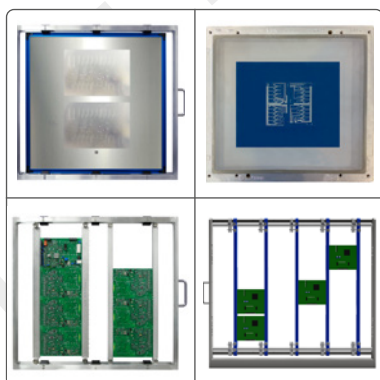- Empty Weight: 480 kg

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STENCIL CLEANING

Optimum screen cleaning (or cleaning of screen stencils, or stencil plates as well as VectorGuard stencils) is a prerequisite for reproducible quality and low failure rates in both electronics and solar cell production today. Residues and contamination from SMD adhesives and SMD solder pastes on screens and stencils, especially in the apertures, lead to printing errors during PCBA production and thus malfunctions of the finished product.

BECAUSE PRECISION MATTERS

The AQUBE® MV-Series

Economic, efficient and with high throughput: Systems of the **kolb** AQUBE® MV series clean up to four **screens or stencils** or **misprints (bare boards)** in just one fully automatic 4step cleaning cycle (Cleaning, MediumWipe®, rinsing, drying). All systems of the AQUBE® MV series work in a fully automatic process with a vertical rotor system with up to eight asynchronous spray rotors. This ensures all-over and constant spray pressure on the stencils, prevents spray shadows and provides for the most thorough cleaning of even the finest dirt in the smallest apertures. Equipped with the optional function package **PCBA Cleaning** these systems can also clean **PCBAs** or **mounted misprints** in tailor made washing frames.

The main features of the AQUBE® MV-Series:

- Two tank combi systems with two separate circuits
- PowerSpray® (Spray-in-air) high volume & pressure technology
- Intelligent network connectivity for smart factories
- Cleaning up to 80 °C (AQUBE® MV3 ONE, MV9 QUAD)
- Remote control & remote service
- Water-free operation possible
- Short cycle time (down to approx. 7 min. depending on detergent and thickness of contamination)
- Process and service intervals PLC controlled
- Event issuing and software control via 10" HR touch screen
- ClosedLoop processing of cleaning and rinsing fluid
- Traceability "Basic" or "Comfort" option

AQUBE® MV3 ONE

PRODUCT DETAILS

- Process chamber dimensions: W 350, D 980, H 920 mm
- Capacity: Stencils, carriers up to 950 x 780 mm (37.5" x 31")
- Volume Tank A: 75 l (Cleaning)
- Volume Tank B/C: 75 l (Rinsing)
- Integrated condensate recovery in the process chamber
- CWA® supercharger compression drying
- Footprint: 950 x 1,600 mm
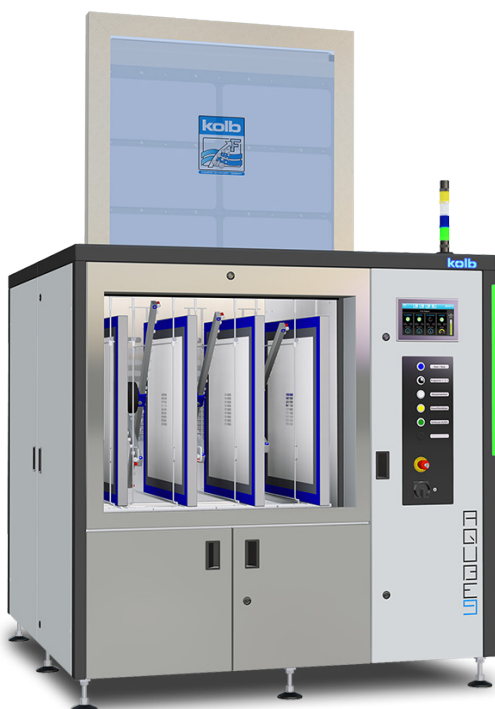- Empty Weight: 570 kg

Get more info

AQUBE® MV8 sTWIN

PRODUCT DETAILS

- Chamber dimensions: 2 x W 270, D 1,000, H 875 mm
- Capacity: Two stencils up to 900 x 800 mm (35" x 32")
- Sequential cleaning possible
- Volume Tank A: 75 l (Cleaning)
- Volume Tank B/C: 75 l (Rinsing)
- CWA® supercharger compression drying
- Footprint: 1,050 x 1,700 mm
- Empty Weight: 630 kg
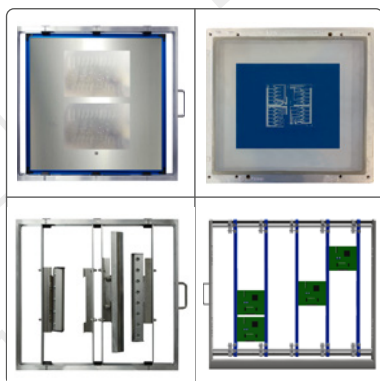
Get more info

AQUBE® MV9 QUAD

PRODUCT DETAILS

- Chamber dimensions: W 970, D 955 mm, H 900 mm
- Capacity: 4 stencils, carriers up to 940 x 800 x 50 mm (37" x 31.5" x 2")
- Volume Tank A: 125 l (Cleaning)
- Volume Tank B/C: 125 l (Tap-water rinsing)
- CWA® supercharger compression drying
- Footprint: 1,700 x 1,850 mm
- Empty Weight: 920 kg

Get more info

PSE Stencil Cleaning Systems

The **kolb** PSE stencil cleaning systems is a quality series of advanced cleaning machines, which focus on all essential criteria for a qualified **screens**, **stencils** or **misprints** and **scrapers / squeegees** cleaning process and therefore stand for attractive purchase prices. The systems of the PSE 300 series offer extremely compact machines with PowerSpray® technology. They are perfectly applicable for small and medium sized companies and smaller quantities as well as for mass production plants where a cleaning system is placed to each printer. The **kolb** PSE MV8 TWIN is a single chamber PowerSpray® system for the thorough cleaning of two stencils (in one cleaning cycle), which provides excellent cleaning results in a short cycle time.

SIMPLY CLEAN STENCILS

PSE MV8 TWIN

PRODUCT DETAILS

- Process chamber dimensions: W 550, D 1.000, H 865 mm
- Capacity: 2 stencils, carriers up to 900 x 800 mm (35 "x 32")
- Volume Tank A: 75 l (Cleaning)
- Volume Tank B: 75 l (Spülen)
- 4Step process: Cleaning, Rinsing (tap water), MediumWipe®, CWA® supercharger compression drying
- Cycle time: < 7 min.
- Eaton PLC with 7" HR touchscreen
- Footprint: 1,050 mm x 1,700 mm
- Empty Weight: 570 kg

Get more info

PSE 300 HD

PRODUCT DETAILS

- Process chamber dimensions: W 350, D 980, H 920 mm
- Capacity: Stencils, carriers up to 840 x 780 mm (33 "x 31")
- Volume mono-tank A/B: 75 l (Cleaning / Rinsing)
- 2Step water free process (Cleaning / Rinsing, Drying)
- HotSpeed warm air drying
- Eaton PLC with 3.5" touchscreen
- Cycle time: < 30 min.
- Footprint: 800 x 1,200 mm

Get more info

PSE 300 VL

PRODUCT DETAILS

- Process chamber dimensions: W 350, D 980, H 920 mm
- Capacity: Stencils, carriers up to 950 x 780 mm (37.5" x 31")
- Volume mono-tank A/B: 75 l (Cleaning / Rinsing)
- 3Step water free process (Cleaning / Rinsing, MediumWipe®, CWA® supercharger drying)
- Eaton PLC with 7" HR touchscreen
- Cycle time: < 10 min.
- Footprint: 800 x 1,200 mm

Get more info

PSE 300 2HD

PRODUCT DETAILS

- Process chamber dimensions: W 350, D 980, H 920 mm
- Capacity: Stencils, carriers up to 950 x 780 mm (37.5" x 31")
- Volume tank A: 75 l (Cleaning)
- Volume tank B: 75 l (Rinsing)
- 3Step process (Cleaning, Rinsing, HotSpeed warm air drying)
- Eaton PLC with 3.5" touchscreen
- Cycle time: < 30 min.
- Footprint: 950 x 1,600 mm

Get more info

PSE 300 2VL / 2VL-XL

PRODUCT DETAILS

- Process chamber dimensions: W 350, D 980, H 920 mm / W 350, D 1,580, H 920 mm
- Capacity: Stencils, carriers up to 950 x 780 mm (37.5" x 31") / 1,560 x 780 mm (61" x 30.5")
- Volume tank A: 75 l / 100 l (Cleaning)
- Volume tank B: 75 l / 100 l (Rinsing)
- 4Step process: Cleaning, Rinsing (tap water), DI / DM-water rinsing, CWA® supercharger compression drying
- Eaton PLC with 7" HR touchscreen
- Footprint: 950 x 1,600 mm / 950 mm x 2,200 mm

Get more info
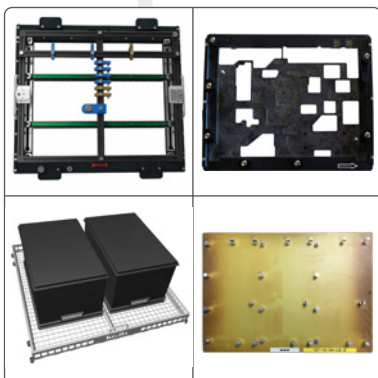
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TOOLS & MAINTENANCE CLEANING

The cleaning tasks in the electronics producing industry can be differentiated into two segments: product cleaning and tools & maintenance cleaning. Product cleaning is described as the cleaning of highly sensible components and is an integrated part of the value-added chain. Tools & maintenance cleaning covers all other cleaning processes that immediately affect the value-added chain. This includes e.g. the thorough cleaning of carriers, solder frames, filters, tubes, soldering ovens etc.

CLEAN TOOLS, CLEAN WORK

The AQUBE® MH-Series

The **kolb** AQUBE® MH series offers maintenance cleaning systems that are true all-rounders for the diverse requirements of tool and parts cleaning thanks to their flexible configuration options. They clean contaminants such as flux, oils, dusts and greases from **carriers**, **masks**, **ESD boxes**, **PCB magazines**, **pallets**, **machine parts** and other **small parts** (e.g. turned and milled parts). The options for the use of operating materials are just as flexible: The optimally adapted cleaning medium can be used as a ready-mix or as a concentrate via a re-dosing unit. All systems are pre-equipped for efficient water recycling and / or disposal modules (see pages 17, 18).

The main features of the AQUBE® MH-Series:

- Two tank combi systems with three circuit function
- Fully automatic 3 - 4step process
- PowerSpray® (Spray-in-air) high volume & pressure technology
- Intelligent network connectivity for smart factories
- Remote control & remote maintenance
- Cleaning up to 80 °C
- Exchange for rinse water and pump out unit as standard
- Process and service intervals PLC controlled
- Event issuing and software control via 10" HR touch screen
- ClosedLoop processing of cleaning and rinsing fluid
- Traceability "Basic" or "Comfort" option

AQUBE® MH5

PRODUCT DETAILS

- ▪Process chamber dimensions: W 540, D 590, H 570 mm
- Capacity: 7 carriers up to 480 x 430 mm (19" x 17"), boxes / racks up to 540 x 590 x 570 mm or up to two drawer baskets for small parts, filters etc.
- Volume Tank A: 55 l (Cleaning)
- Volume Tank B: 35 l (Rinsing)
- VMA® Turbo hot air evaporative drying (45 - 100 °C)
- Footprint: 840 x 1,180 mm
- Empty Weight: 350 kg

Get more info

AQUBE® MH7

▪ PRODUCT DETAILS

- ▪ Process chamber dimensions: W 700, D 720, H 710 mm
- ▪ Capacity: 11 carriers up to 670 x 640 mm (26" x 25"), boxes / racks up to 700 x 720 x 710 mm or up to three drawer baskets for small parts, filters etc.
- ▪ Volume Tank A: 55 l (Cleaning)
- ▪ Volume Tank B: 35 l (Rinsing)
- ▪ VMA® Turbo hot air evaporative drying (45 - 100 °C)
- ▪ Footprint: 1,200 x 1,340 mm
- ▪ Empty Weight: 480 kg

Get more info

AQUBE® MH9

▪ PRODUCT DETAILS

- ▪ Chamber dimensions: W 970, D 955 mm, H 900 mm
- ▪ Capacity: 14 carriers up to 950 x 750 mm (37.5" x 29.5"), boxes / racks up to 970 x 955 x 900 mm or up to four drawer baskets for small parts, filters etc.
- ▪ Volume Tank A: 125 l (Cleaning)
- ▪ Volume Tank B: 125 l (Tap-water rinsing)
- ▪ VMA® Turbo hot air evaporative drying (45 - 100 °C)
- ▪ Footprint: 1,700 x 1,850 mm, Empty Weight: 920 kg

Get more info

The **kolb** PSE MH series offers all-round systems for nearly all requirements of maintenance cleaning from flux, oil, dust and grease for **carriers / masks**, **ESD boxes**, **PCB magazines**, **pallets**, **machine parts** and other **small parts** (for example, turning and milling parts). The systems are very compact, energy saving and well equipped in their basic version.

PSE MH5

PRODUCT DETAILS

- Process chamber dimensions: W 540, T 590, H 570 mm
- Capacity: 7 carriers up to 480 x 430 mm (19" x 17"), boxes / racks up to 540 x 590 x 570 mm or up to two drawer baskets for small parts, filters etc.
- Volume Tank A: 55 l (Cleaning)
- Volume Tank B: 35 l (Rinsing)
- VMA® hot air evaporative drying (70 - 90 °C)
- Footprint: 840 x 1,180 mm, Empty Weight: 350 kg

Get more info

ECONOMIC CLEANLINESS

PSE MH7

PRODUCT DETAILS
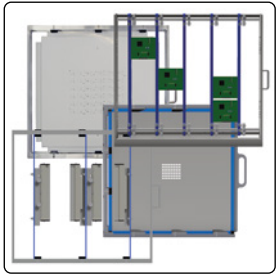
- Process chamber dimensions: W 700, D 720, H 710 mm
- Capacity: 11 carriers up to 670 x 640 mm (26" x 25"), boxes / racks up to 700 x 720 x 710 mm or up to three drawer baskets for small parts, filters etc.
- Volume Tank A: 55 l (Cleaning)
- Volume Tank B: 35 l (Rinsing)
- VMA® hot air evaporative drying (70 - 90 °C)
- Footprint: 1,200 x 1,340 mm
- Empty Weight: 480 kg

Get more info

Accessory program (excerpt)

Washing Carriers & Frames

kolb offers a whole range of tailored frames and carriers for PCB, misprint, stencil and parts cleaning e.g. adapter washing frames for, frameless stencils, DEK Vector-Guard stencils, LaserJob stencils, misprinted boards, PCBs, PCBAs, squeegees and scrapers.

Get more info

SlideIn Quick Load Inserts

Speed loading slide in units with two, three or four drawer baskets. The drawer baskets can be loaded outside of the cleaning system, which facilitates handling. If two units are in use, one can be loaded while a filled one runs through a cleaning cycle in the machine. The loading and unloading then requires only minimal system downtime, since the loaded units can be completely slided in and out.
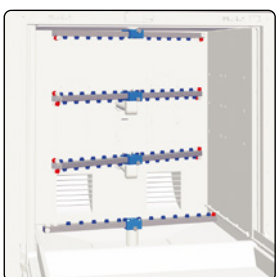
Get more info

SpeeLoad Carts

Stainless steel set-up carts for the transport of SlideIn Quick Load inserts within a production area. They allow faster and easier transport when the load unit baskets cannot be loaded in the immediate vicinity of the cleaning system. The trolley fits exactly to the size of the corresponding machine, so that the complete loading unit can be easily and smoothly pushed into the cleaning chamber.
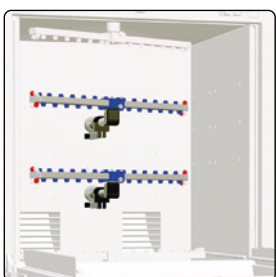
Get more info

Electronic Rotor Run Control

To monitor correct rotor operation in closed **kolb** AQUBE® and PSE systems. The rotor run control option checks the functioning of the rotors electronically, to prevent from rotor damage e.g. because of loading mistakes or slipped products. Built-in sensors at each half turning of each rotor send a signal to the PLC.

Get more info

Rotor QuickConnect

QuickConnect is a rotor speed clamping system. The horizontal center rotors of a **kolb** cleaning system can be installed or removed within a few seconds. If goods to be cleaned require more headroom than the normal rotor arrangement allows, the center rotors can be easily removed using the quick-release system. The rotors for smaller goods to be cleaned can be installed again just as quickly, which guarantees the optimum flexibility of the cleaning chamber.

Get more info

Decalcification Unit

Ensuring required tap water quality for the rinse circuit. In the case of systems connected to a tap water supply on site, where the water quality of which does not correspond to the required < 10°dH or < 350 µS conductivity value, the water quality required for the rinsing process can be produced by the decalcification unit. By means of the ball valve above the cartridge, the blend between the city water and the treated (decalcified) water is adjusted.

Get more info

The AF-Series

The **kolb** AF-series offers rugged state of the art systems for maintenance cleaning working with the aqueous with AirFlow® technology, the thorough and environment sound turbulence air in immersion cleaning process developed by **kolb**. This technology differs from common spray-in-immersion applications, as the goods to be cleaned here are actively submerged everywhere by the cleaning fluid which is swirled with compressed air. It guarantees a permanent all over active flushing without dead spots so that every contamination is fast and efficiently cleansed off.

The main features of the AF-Series:
- Fully automatic 3step process: cleaning - rinsing - drying
- Load and unload into the empty process chamber
- Process and service intervals PLC controlled
- Event issuing and software control via HR touch screen
- Cleaning and rinsing circulation with skimmer fine filtering
- Filter pressure monitoring by PLC
- Rinsing circulation with automatic water exchange
- ClosedLoop recycling of cleaning and rinsing fluid
- Short cycle times, high cleaning efficiency
- Traceability "Basic" option
- Certified for solar cell production

CLEAN TECHNOLOGY

AF75

PRODUCT DETAILS

- Process chamber dimensions: W 1,280, D 770, H 600 mm
- Condensation traps, filters, carriers, solder frames and pallets up to 770 x 1,280 x 600 mm
- Volume Tank A: 1000 l (Cleaning)
- Volume Tank B: 1000 l (Rinsing)
- Eaton SPC with 7" touch screen
- CTS HotSpeed warm air drying
- Control range drying: approx. 55 - 60 °C
- Footprint: 2,360 mm x 940 mm
- Empty Weight: 780 kg

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more
info

AF20

PRODUCT DETAILS

- Process chamber dimensions: W 810, D 435, H 520 mm
- Condensation traps, filters, carriers, solder frames and pallets up to 810 x 435 x 520 mm
- Volume Tank A: 230 l (Cleaning)
- Volume Tank B: 230 l (Rinsing)
- Eaton SPC with 7" touch screen
- HotSpeed warm air drying
- Control range drying: approx. 40 - 45 °C
- Footprint: 1,820 mm x 1,150 mm
- Empty Weight: 460 kg

Get more info

DOING THE DIRTY WORK

AF30

PRODUCT DETAILS

- Process chamber dimensions: W 1,300, D 450, H 600 mm
- Condensation traps, filters, carriers, solder frames and pallets up to 1,300, D 450, H 600 mm
- Volume Tank A: 475 l (Cleaning)
- Volume Tank B: 475 l (Rinsing)
- Eaton SPC with 7" touch screen
- CTS HotSpeed warm air drying
- Control range drying: approx. 40 - 55 °C
- Footprint: 2,400 mm x 1,600 mm
- Empty Weight: 750 kg

Get more info

kolb

Water Management

An internal rinsing water (ClosedLoop) processing cycle is integrated as a standard in all **kolb** PowerSpray® cleaning systems with two or more separate circuits already. Here, the rinse water is reprocessed several times before it needs to be replaced. Then it may be recycled for reuse in special (CrossLoop) WPCL units or processed for the discharge into the local sewage network (with WPSD modules). For both technologies **kolb** offers cost effective and compact modular systems which deliver best results.

WPCL EU

PRODUCT DETAILS
▪ ZeroDischarge rinse water treatment ▪ Multiple use of rinse water usually until the end of the detergent's service life ▪ For **kolb** AQUBE® and PSE MH / MV and PSE 300 two-tank systems ▪ 4 filter stages ▪ Fully automated PLC controlled process ▪ Plug & Run: Easy set-up even for retrofitting systems

Get more info

SAVE VALUABLE RESSOURCES

WPCL IUT2

PRODUCT DETAILS
▪ Recycling of clear rinse water into DI / DM quality ▪ SYMBIO-integration as a framework module at the system back as fully enclosed solidly integrated unit ▪ Increases its depth by only about 400 millimeters. ▪ For (retrofitting) **kolb** AQUBE® and PSE L or M systems ▪ 6 filter stages ▪ Integrated water exchange / refilling system ▪ Fully automated PLC controlled process

Get more info

WPCL IUT3

PRODUCT DETAILS
▪ Recycling f clear rinse water into DI / DM quality ▪ SYMBIO-integration as a framework module at the system back as fully enclosed solidly integrated unit ▪ For **kolb** AQUBE® XH7 and XH9 systems ▪ Depth increase by only about 700 millimeters ▪ 6 filter stages ▪ Integrated water exchange / refilling system ▪ Fully automated PLC controlled process

Get more info

WPSD IU5/7

PRODUCT DETAILS

- Wastewater disposer SYMBIO-module
- Integration at the system back as fully enclosed solid unit
- For **kolb** AQUBE® X5, X7, L5, L7, M5 and M7 systems
- Process tank with content of approx. 140 litres
- 5 filter stages
- Automatic dosing of regulators for pH-value reduction
- Integrated pumping system to sewage network
- Fully automated PLC controlled process

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WPSD IU9

PRODUCT DETAILS

- Wastewater disposer SYMBIO-module
- Integration at the system back as fully enclosed solid unit
- For **kolb** AQUBE® X9, MH9 and MV9 systems
- Process tank with content of approx. 450 litres
- 5 filter stages
- Automatic dosing of regulators for pH-value reduction
- Integrated pumping system to sewage network
- Fully automated PLC controlled process

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WPSD IUAF30

PRODUCT DETAILS

- Wastewater disposer SYMBIO-module
- Integration at the system back as fully enclosed solid unit
- For **kolb** AF30 AirFlow® systems
- 4 - 5 filter stages
- Automatic dosing of regulators for pH-value reduction
- Integrated pumping system to sewage network
- Fully automated PLC controlled process
- Easy maintenance access through rear door / rear covering

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WPSD IUAF75

PRODUCT DETAILS

- Fully clad wastewater disposer unit
- Freely installable in the room
- For **kolb** AF75 AirFlow® systems
- 4 - 5 filter stages
- Automatic dosing of regulators for pH-value reduction
- Integrated pumping system to connected IBC container
- Fully automated PLC controlled process
- Easy maintenance access through rear door / rear covering

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Function Packages & Single Options (Excerpt)

PCBA Cleaning (Function Package)

For the cleaning of sensitive electronics. The PCBA Cleaning function package qualifies **kolb** (mainly) stencil cleaning systems for the thorough removal of flux residues, resin, oxides and soldering materials from printed circuit boards, active and passive electronic components, BGAs, flip chips, relays, inductors, etc.

Get more info

Auto Detergent Monitoring (Function Package)

Inline / online detergent stability monitor. To precisely adjust the concentration of the cleaning bath in conjunction with an automatic re-dosing unit, the **kolb** inline / online brix monitor automatically measures the refractive index of the cleaning medium and reacts if it is too high or too low concentrated.

Get more info

OPTIONAL UPGRADES

Traceability Basic / Traceability Comfort (Function Packages)

Data tracking, saving and storing. **kolb** offers two traceability options for its cleaning systems both with wireless scanners. A basic version, compatible with all systems with touch panel (PSE and AQUBE®-Systems) and a comfort version, available for all AQUBE® systems.

Get more info

AOS Selection (Function Package)

Automatic rinse water outlet separation. AOSelection is a combined hard- and software solution to pump out used rinse water automatically selected whereby a distinction is made between dischargeable water and liquids for professional disposal.

Get more info

DI-Water System / DI-Water System Combi (Function Packages)

For the production and quality control of deionized (DI) and demineralized (DM) purified rinse water in the cleaning system. DI-Water System Combi additionally includes the single option "Automatic Water Exchange", which is intended for **kolb** systems that do not have this option in their basic equipment (such as AQUBE® / PSE MV and PSE 300 2VL stencil cleaning systems).

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Our function packages and single options which are standard in many systems are available to expand certain systems to additional process capabilities or to increase their actual performance.

Remote Maintenance (Single Option)

Online maintenance assistance. Remote helpline to **kolb** service engineers for fast software data analysis, maintenance assistance, instructions and monitoring. With the agreement of the operator - **kolb** service engineers can connect to the remote module via an existing network connection and, by reading out the data, provide the customer with specific support for settings / troubleshooting, etc.

Get more info

Automatic Additive Dosage (Single Option)

Replenishment unit for detergent additives. Automatic unit for adding a detergent additive in order to keep the permanent mixing ratio in the cleaning tank more process-reliable and to shorten maintenance times.

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Automatic Water Exchange (Single Option)

Exchange unit for the rinsing tank. The automatized water exchange of the rinse tank optimizes the process reliability of the water change and minimizes downtime due to maintenance of the cleaning system. The system pumps down the used rinse water within a short time and fills in fresh water from the on-site water connection.

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MediumWipe® (Single Option)

Designed to prevent detergent carryover and additional consumption and to extend the service life and quality of the rinse water. The MediumWipe® process blows pipes, rotors / nozzles and items to be cleaned free from remaining liquid by the compressed air unit installed on the rear of the cleaning system. The blown off liquid is recirculated into the corresponding tank.

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Detergent Tank Heater (Single Option)

Unit for precise detergent heating up to max. 80 °C. For the cleaning with detergents which develop their optimal cleaning effect only at higher temperatures. The cleaning temperature of the unit equipped with a contact protection will be preset to a defined value. The PLC control module for the heater enables the activation of the heating element, monitors the temperature and activates the built-in overtemperature protection.

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Fine Filter Systems Tank A, Tank B (Single Options)

Replaceable filter cartridges with different degrees of fineness filter out contaminants such as heavy metals that were washed off during the cleaning process or that were introduced into the rinsing medium by rinsed-off cleaner residues from the cleaning medium (option tank A) or from the rinsing medium (option tank B). As a result, the detergent or rinsing medium remain operational for much longer.

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Our most important certificates

Efficiency, economy and safety are outstanding features of our cleaning systems. You will find the relevant certifications on our cleaning systems.

Intelligent energy management is what describes best our patented ENERSAVE technology which allows our cleaning systems to run with the lowest power consumption in comparison to competitor products and delivering an even higher power performance.
No need for high voltage installations and no need to take extra security measures - not to mention the significant savings of energy costs.

The WATERSAVE certified ClosedLoop and CrossLoop technologies of **kolb** help saving water by recycling contaminated and wasted rinse fluids.
All our PCB cleaning systems are equipped by default with an integrated ClosedLoop processing for cleaning and rinsing media, ensuring multiple cycles with minimum losses. Special CrossLoop processing systems help to even increase this performance.

The 5-Star SAFEGAR guarantee from **kolb** ensures that all safety relevant devices e.g. safety interlock on the chamber door, overflow alarm for all tank sections, overheating protection for all heating and drying elements, end switches for all motor-driven valves and drives, personnel protection insulation etc. are included in the machine base prices.
Because at **kolb** safety features are of course always standard - never an option.

The **kolb** EASOTECH construction assurance provides state of the art technology with the easiest possible handling on site. The process stability, speed, compactness, durability and cost effectiveness of our systems are based upon complex engineering as well as upon comprehensive software design.
All you have to do is push one button only, to make these sophisticated technologies work straightforward in their daily business.

Service & Touch Points

Our company is logistically perfectly located in the industrial area Willich-Munchheide II, near Dusseldorf, Germany. If you would like to get information on the spot: We are looking forward to your visit.

Trainings

kolb offers trainings and workshops for the optimization of our customers processes and for their service- and maintenance teams - upon request with tailored training concepts and certificates for the participants. Trainings can likewise be executed in our demonstration center or directly at our customers plant.

Service Request

You require our support? For agreements / questions via telephone you can reach us under our Hotline +49 (0) 2154 / 94 79 - 44, Monday-Friday 8 am to 3 pm If you need a technician, please send us the completed **kolb** service requisition. You will find it in the manual of your cleaning system or online right here >>

Hotline

Information & Sales: Monday - Friday from 8 am to 5 pm, Phone +49 (0) 2154 / 9479 - 38. Service & Technical Support: Monday - Friday, from 8 am to 3 pm, Phone: +49 (0) 2154 / 9479 - 44, in case of urgency also dial extension - 38, - 37 or - 22.

Our international branches as well as our global distribution partner network are always at your service: Please contact us any time to arrange an appointment.

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