



PS300 VL

Fully automatic single chamber PowerSpray®-system with 4step process (cleaning, rinsing, MediumWipe®, drying)

Cleans Screens, stencils, PumpPrints, solder carriers, misprints from SMD paste, SMD adhesive, flux, oil, grease

Capacity: Screens, stencils, frames and carriers up to a size of 780 x 950 mm (31" x 37,5")

Part number: 0905300-PS-VL-C

CLEANING TECHNOLOGY

Made in Germany



Certifications:

This water free operating system was certified in its basic version for its energy saving processing, for easy operability and for the standard integration of comprehensive safety features.

- Compact system with two circuits and two tank function
- Waterless / independent, no water / waste water connection necessary
- Comfortable push one button operation
- Fully automatic 4step process: cleaning, rinsing, MediumWipe®, drying with CWA®-supercharger compression drying
- Vertical rotor system with two asynchronous spray rotors for thorough wetting (no blind spots)
- Process and service intervals PLC controlled
- Event issuing and software control via touchscreen
- Process sections made of electrolysis and high temperature resistant elements
- Safe installation close to the production line possible; no special protection required
- Extremely compact - maximum capacity on a very small footprint

Key applications



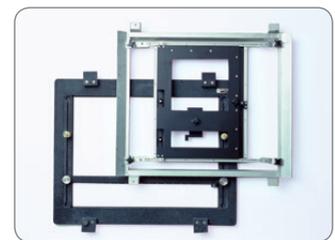
Screens



Stencils



PumpPrints



Solder carriers

kolb PS300 VL is an extremely compact first-rate performance PowerSpray® system designed and manufactured in Germany for smaller quantities with very short cycle times due to an intelligent 4step process with patented high performance supercharger drying.

PS300 VL delivers best possible cleaning of screens, stencils, PumpPrints, misprints and solder frames, today a prerequisite for reproducible quality in production, the reduction of expensive production stand-stills and as well for high customer satisfaction.

The cleaning system can be operated with all common electronics cleaning supplies (detergents / chemistry, etc.) which are approved by the manufacturer.



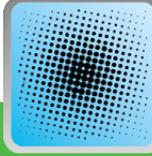
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Application overview

Optional suitable	Most suitable	Optional suitable	Not suitable	Not suitable
				
Assembled PCBs Hybrids Misprints	Stencils Screens, PumpPrints Misprints	Solder frames Solder carriers Solder masks	ESD Boxes Containers Magazines	Condensation traps Filters Steel sheets

Optional suitable applications can also be optimally realized with the appropriate options.

Cleaning (key process 1): From the system tank a communicating cleaning and rinsing liquid is sucked by a magnetically coupled pump unit and routed with a controllable volume flow into the ASYNCHRO® spray rotors with patented PUSHFORCE® nozzles. Their geometry ensures a comprehensive and thorough cleaning, even in inaccessible and critical areas.

MediumWipe® (intermediate process): The remaining liquid is blown off from the clean products and blown out of the circuit and recirculated into the system tank.

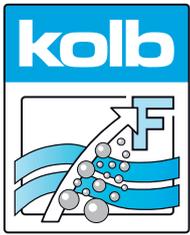
Rinsing (key process 2): The liquid is then pumped through a cascade-fine filter circuit into the spray rotors and rinses the products with high.

MediumWipe® (intermediate process): The remaining liquid is blown off from the products and and recirculated into the system tank.

Drying (key process 4): The purified products are dried with the patented CWA® (Compressed Warm Air) technology. The built-in special compressor compresses the ambient air. At the same time it collects the kinetic energy (frictional heat) of the paddle wheel in the unit, then presses the heated and compressed air into the rotor nozzles which were already used for cleaning and rinsing. There it blows off (pressure) and evaporates (heat) the residual moisture. This method is energetically and constructively highly efficient, as it uses the "waste heat" of the compressor rotation and the compressed air as driving power for the rotors. In addition, a system equipped with CWA® technology requires no additional hardware and no external compressed air connection for the MediumWipe® process.

Cycle time: < 13 min., depending on contamination and detergent

Maintenance: The system has a large maintenance door on the right side. In the maintenance area among others are the pump-out set and the optional re-dosage unit with space for a 25 l cleaning / rinsing liquid and a 5 l additive container. Tank levels as well as pressure values and maintenance cycles are monitored by the PLC and displayed on the touch screen.



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Main standard features

- PowerSpray® technology bundle: magnetically coupled pump unit, twofold ASYNCHRO® volume-spray rotorsystem with PUSHFORCE® nozzles, "Option101" software program (101 freely selectable programs)
- Magnetic coupled X-Power pump unit
- EATON Programmable Logic Controller (PLC)
- Separate rinsing circuit
- Full flow coarse filter (process chamber)
- Cascaded filter system
- MediumWipe® unit for further optimization of detergent and rinsing fluid use
- CWA®-supercharger compression drying
- ClosedLoop reprocessing of cleaning and rinsing fluid
- Safety features: safety interlock on the process 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
- Front cover made of stainless steel, side and rear covers in painted steel
- Process sections made of electrolysis resistant elements

Main options

- Automatic re-dosage unit for 25 l detergent and 5 l additive container
- Drip & storage reservoir
- Exhaust unit
- Full stainless steel housing
- Noise insulation
- Sediment filter for cleaning / rinsing tank
- Status light threefold to display the current process state



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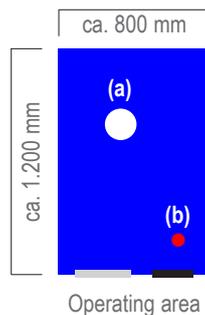


Technical data

Technology base	kolb PowerSpray[®]
Capacity	Screens, stencils, frames, carriers up to 80 x 950 mm (31" x 37,5")
Process chamber dimensions	W 350 ▪ D 980 ▪ H 920 mm
Volume tank	ca. 75 - 100 l l
Power supply	400 V AC, 16 A CEE / 3PH / 50 or 60 HZ
Power consumption	ca. 4 kW
Control system	PLC (EATON)
Temperature load	up to 55°C
Filter system	up to three stage - 1. Full flow coarse filter < 2 mm, 2. Sediment filter inside the tank, 3. 20" fine filter (1 - 100 µm - process dependent)
Exhaust connection	Ø 160 mm, exhaust capacity 200 to 300 m ³ / h
Footprint	800 x 1.200 mm
Operating noise	74 dB (A)
Empty weight	350 kg

Top view:

Space requirement
cleaning system
(a) = Exhaust 160 mm
(b) = Status light



Front view:

with optional
status light (b)

