



TECHNICAL INFORMATION



PSE 300 VL

Compact fully automatic fine cleaning economy system for stencils/screens



PSE 300 VL

Fully automatic PowerSpray® mono-tank compact system with 3-step process (cleaning/rinsing, MediumWipe®, drying)

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

Capacity: Screen, stencil, carrier/washing frame up to 780 x 950 mm (31" x 37.5")

Part number: 0900PSE3VL-2

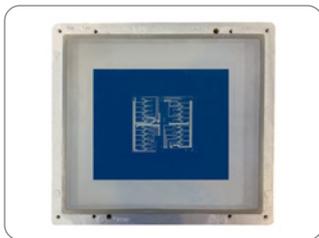


Certifications:

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 mono-tank system two-tank function
- * Average process time: 13 min per stencil
- * Waterless/independent, no water/waste water connection necessary
- * Fully automatic 3-step process: cleaning/rinsing, MediumWipe®, drying with CWA® supercharger compression drying
- * Vertical rotor system with two ASYNCHRO® spray rotors for thorough wetting (no blind spots)
- * Permanent double-filtration for cleaning/rinsing
- * Processes and service intervals PLC controlled
- * Universal stencil placement fixture
- * Safe installation close to the production line possible; no special protection required
- * Extremely compact - high performance on a very small footprint

Key applications



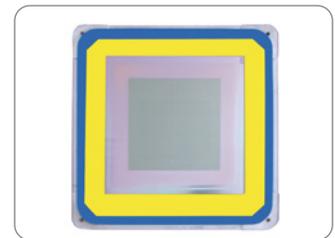
Screens



Stencils



PumpPrints



M-TeCK stencils

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 300 VL is an extremely compact first-rate performance PowerSpray® system designed and manufactured in Germany. The system is designed for smaller quantities to be cleaned in very short cycle times due to an intelligent 3step process with patented high-performance supercharger drying.

PSE 300 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

Not suitable	Most suitable	Optional suitable	Not suitable	Not suitable
 PCBAs, Hybrids Power electronics Misprints	 Stencils Screens Misprints (bare boards)	 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 special 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 products 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.

Maintenance: The system has two large removable panels on the right and left side. In the maintenance area among others are the pump-out set and the re-dosage unit with space for a 25-l cleaning/rinsing liquid container. Tank levels as well as pressure values and maintenance cycles are monitored by the PLC and displayed on the touch screen. The tank level is also easily controllable through a window in the system front.



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Main standard features

- PowerSpray® technology bundle: magnetically coupled X-Power pump unit, twofold ASYNCHRO® volume-spray rotor system with special nozzles, "Option100" software program (100 freely selectable programs)
- EATON Programmable Logic Controller (PLC)
- High resolution 7" (1,024 x 600 px) display with multi-touch and intuitive process view
- Full flow coarse filter (process chamber)
- Function package Fine Filter System (incl. X-Power pump unit for the cleaning circuit, fine filter system and sediment filter) for the system tank
- MediumWipe® unit for further optimization of detergent and rinsing fluid use
- ClosedLoop reprocessing of cleaning and rinsing fluid
- Automatic re-dosage unit for 25 l detergent container
- CWA® supercharger compression drying
- Ø 160 mm 2Step chamber exhaust system with extraction control and integrated condensate recovery system
- 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 made of powder-coated steel
- Process sections made of electrolysis resistant elements

Main options

- Function package Traceability "Basic" (incl. SPC data scanner, data backup in CSV file, backup via SD card (via slot in the PLC))
- Function package Noise Insulation (incl. option housing insulation and option safety/storage tray with integrated underfloor insulation mat)
- Heater cleaning/rinsing tank
- Remote control (browser-based control/monitoring via mobile device or PC)
- X-Power FC (frequency converter/performance booster)
- XL-Power pump unit
- XL-Power FC (frequency converter/performance booster)



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Technical data

Technology base	kolb PowerSpray®
Capacity per process cycle	Screen, stencil, carrier, washing frame up to 780 x 950 mm (31" x 37.5")
Process chamber dimensions	W 350 ▪ D 1.000 ▪ H 920 mm (W 13.77" ▪ D 39.37" ▪ H 36.22")
Tank volume	100 l
Electrical supply	400 V AC, 16 A, CEE plug/3 Ph/50 or 60 Hz
Power consumption	4 kW
Control system	PLC (EATON)
Max. cleaning temperature*	50 °C (122 °F) - *max. temperature load for the tank circuit
Filter system	up to three stages - 1. Full flow coarse filter < 2mm (0.08"), 2. Sediment filter inside the tank, 3. 20" fine filter (1 - 100 µm - process dependent)
Exhaust connection	Ø 160 mm (6.3"), exhaust capacity 200 - 300 m³/h (7,063 - 10,595 ft³/h)
Footprint	W 800, D 1,200 mm (W 47.24", D 31.49")
Operating condition room temperature	approx. 20 - 35 °C (68 - 95 °F)
Operating noise	74 dB(A)/70 dB(A) with function package Noise Insulation
Empty weight	370 kg (816 lbs)

