



TECHNICAL INFORMATION



PSE 300 VS

Compact fully automatic fine cleaning economy system for stencils/screens



PSE 300 VS

Fully automatic PowerSpray® mono-tank compact system with 2-step process (cleaning/rinsing, drying)

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

Capacity: Screen, stencil, carrier, washing frame up of 780 x 950 mm (31" x 37,5")

Part number: 0905PSE3VS-2

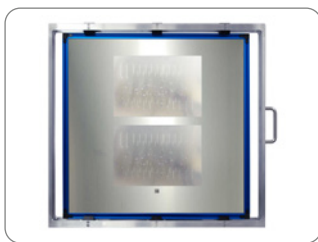


Certifications:

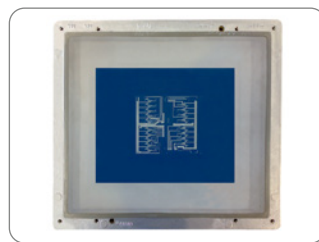
This water free operating system was certified in its basic version for its energy saving processing, for easy operability and for the standard integration of comprehensive safety features.

- * Compact mono-tank system with two-tank function and communicating detergent
- * Average process time: 18 min per stencil
- * Waterless/independent, no water/waste water connection necessary
- * Fully automatic 2-step process: cleaning/rinsing, drying with CWA® supercharger compression drying
- * Vertical rotor system with two ASYNCHRO® spray rotors for thorough wetting (no blind spots)
- * Process and service intervals PLC controlled, event issuing and software control via 3,5" touch screen
- * Process sections made of electrolysis and high temperature resistant elements
- * Safe installation close to the production line possible; no special protection required
- * Certified for solar cell production
- * Extremely compact - high performance on a very small footprint

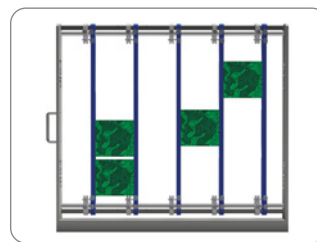
Key applications



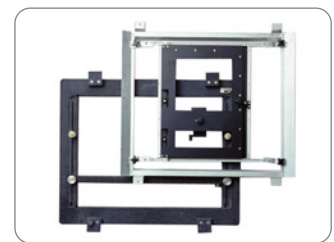
Screens



Stencils



Misprints (bare boards)



Solder carriers

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 VS is an extremely compact first-rate performance PowerSpray® system designed and manufactured in Germany for smaller quantities, allowing very short cycle times due to an intelligent 2step process with patented high-performance supercharger drying.

PSE 300 VS delivers best possible cleaning of screens, stencils, 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.








PSE 300 VS

Fully automatic PowerSpray® mono-tank compact system for screens, stencils, solder carriers

Part number: 0905PSE3VS-2



Application overview

Not suitable	Most suitable	Optional suitable	Not suitable	Not suitable
 PCBAs, Hybrids Power electronics Misprints	 Stencils Screens, PumpPrints 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/rinsing (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. The liquid is continuously filtered in circulation, so that the system progressively enters the rinsing process after removing the contamination.

Drying (key process 2): 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: < 18 min., depending on contamination and detergent

Maintenance: The system has two large removable panels on the right and left side. In the maintenance area among others the pump-out set is available. Tank levels as well as pressure values and maintenance cycles are monitored by the PLC. 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 S-Power pump unit, twofold ASYNCHRO® volume-spray rotor system with special nozzles
- Magnetic coupled pump unit
- EATON Programmable Logic Controller (PLC)
- High resolution 3.5" touch display
- Full flow coarse filter (process chamber)
- CWA®-supercharger compression drying
- ClosedLoop reprocessing of cleaning and rinsing fluid
- Safety features: safety interlock on the process chamber door, 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

- Cascaded filter system/Sediment filter for cleaning/rinsing tank
- Drip & storage reservoir
- Exhaust control
- Full stainless-steel housing
- Function package Noise Insulation (incl. option housing insulation and option safety/storage tray with integrated underfloor insulation mat)



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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, 16 A CEE plug, L1, L2, L3, N, PE/50 - 60 Hz
Power consumption	3 kW
Control system	SPS (EATON RTD)
Max. cleaning temperature*	50 °C (122 °F) - *max. temperature load for the tank circuit
Filter system	1. Full flow coarse filter < 2 mm (0.08"), 2. 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 31.49", D 47.24")
Operating condition room temperature	20 - 35 °C (68 - 95 °F)
Operating noise	74 dB(A)/70 dB(A) with function package Noise Insulation
Empty weight	325 kg (717 lbs)

