

PS 300 VL-C

Compact stencil cleaning system



Fully automatic single-chamber-PowerSpray® 4Step- compact cleaning system for products up to 780 x 950 mms, 31" x 31,5". Cleans screen-stencils, PumpPrint stencils, misprints or as an option four solder carriers from SMD-paste and SMD adhesive, flux, oil, dust, gre-ase and many more. **Part No. 0905300-PS-VL-C**

The situation

Best possible cleaning of screens / stencils (in electronics and solar cell production) as well as possible misprints today is the prerequisite for a reproducible quality in production as well as the reduction of expensive production stand-stills. The trend is the installation of highly automated, quick and cost-saving yet efficient and reliable processes that ensure high customer satisfaction. The development of **kolb PS300 VL** takes this into consideration especially for smaller quantities. The use of almost odourless solvent-free* waterbased detergents ensures highest possible cleaning efficiency and guarantees a secure and widest possible process window.

The advantages of PS300 VL:

- 2-tank system with communicating detergent tank with integrated cascade sediment filtration.
- Suitable for cleaning products up to 780 x 950 mms, 31," x 37,5".
- Also ideally applicable for the cleaning of PumpPrint stencils and solder carriers.
- Fully automatic looped 4step process: cleaning, rinsing, MediumWipe®, rinsing.
- Comfortable single push button operation.
- Short cycle time (<13 min), depending on contamination and detergent.
- Process cycle time and maintenance intervals PLC controlled and variable.
- Filter saturation PLC-controlled.
- 5-stage fine filtration system with 25 & 5 µm fine filters.
- PS-PowerSpray module with magnetic coupled XPower pumping unit.
- Warm air drying with high power supercharger (patent registered).
- PLC graphic display.
- Closed loop. No water connection, no waste water disposal necessary.
- No compressed air necessary!
- Front cover in stainless steel, side and rear covers in painted steel.
- All process sections made of electrolysis-resistant material.
- No explosion protection necessary, use next to the production line is possible.
- Space saving interlockable hinged door with window into the process chamber.
- Extremely compact: small footprint - Euro pallet size (= < 1m²), height only 160 cm.

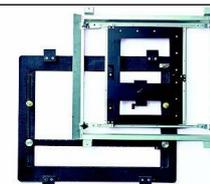
The system has to be operated with a rinsing suitable (RS-) cleaning detergent.



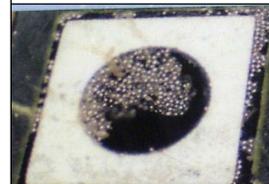
Screen-stencils, PumpPrints



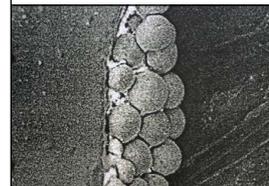
Screens



Solder frames



Soldering residues



Soldering residues

Applications

Contaminations

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*Solvent = organic hydrocarbon, under normal conditions volatile, flammable and risk of explosion.



PS300 VL compact cleaning system

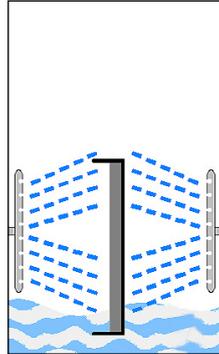
Loading



Operator panel



Function



X-Power



Maintenance



Function

The PS300 VL will be loaded using the space-saving hinged door. Products / stencils to clean (stencil or solder carrier) can be directly positioned into the process chamber. Protective round bars on either side in front of the spray rotors prevent damages to the stencils in case of handling errors. After loading, the door will be closed manually and will be locked automatically after the START of the cleaning operation. The fully automatic 4Step cleaning process is shown in the display and runs in the pre-selected cycle time:

- Step 1 Cleaning
- Step 2 Rinsing
- Step 3 MediumWipe®
- Step 4 Warm air drying with high power supercharger®

The short cycle time (approx. 13 minutes) ensures a quick return of the products / stencils into the production process. Also the PS300 VL allows the installation close to the production area and it is thus another vital element in the value-added chain.

Attention: Cleaning only with pH-neutral TS/RS waterbased cleaning detergents qualified by the system manufacturer.

Programming / control

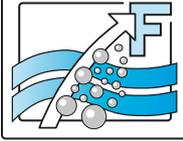
PS300 VL will be controlled by a PLC. The cycle time of the respective 4Step cleaning program is freely programmable and displayed in the PLC. For the easy selection of the suitable cleaning program there is a 3-stage selector switch integrated into the operator desktop.

Service and maintenance

Special care was taken to ensure an easy maintenance in the shortest possible time. The tank level is easily controllable via the transparent inspection opening in the front of the system. Filling of the tank will happen through the opened hinged door directly into the process chamber. In the maintenance and service area at the right-hand side of the system there is the double filter cartridge unit with 25 and 5µm as well as the integrated pump-out unit. The main events such as medium min. / max., filter pressure, etc. as well as maintenance cycles will be monitored and displayed by the PLC.

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PS300 VL compact cleaning system

Status light



Exhaust



Reservoir



Cleaning carrier



Cleaning carrier



Options / accessories for PS300 VL:

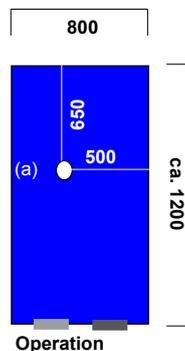
- Status light for system monitoring from the distance
- Exhaust control with motor driven tight-closing flap valve to reduce to high extraction / too high consumption.
- Automatic re-dosage
- Reservoir with screwed and sealed front.
- Carriers: various sizes and configurations as per customers` requirements.

Technical data

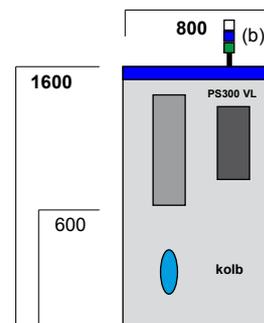
Power supply	:	400 VAC, 16 A CEE / 3Ph / L1, L2, L3, N, PE / 50 or 60 Hz
Power consumption	:	approx. 4 kW
Programming and control	:	PLC Eaton with graphic display
Ambient temperature	:	min. 20° C / max. 50° C
Noise	:	< 74 dB (A)
Weight	:	approx. 350 kg
Contents of the tank system	:	approx. 75 liters TS / RS pH7 neutral cleaning detergent
Option: Exhaust	:	Connection w. capacity of approx. 200-300 m³/h necessary
5-stage filtration	:	1. Coarse filter < 2mms 2. Cascaded sediment filter step tank 1 left 3. Cascaded sediment filter step tank 2 right 4. Fine filter cartridge 25µm 5. Fine filter cartridge 5µm

Foot print and max. space required for service and maintenance (in mms)

Top view:
Max. space required
(a) = Exhaust (160 mm)
(b) = Status light



Front view:
Max. space required
(incl. optional status light)



Certifications:

This system in its basic version was certified for its energy processing and for the standard integration of comprehensive safety features.



All rights for changes reserved that lead to technical improvement.