### **CLEANING TECHNOLOGY**





### Compact stencil cleaning system



**Fully automatic single-chamber-PowerSpray® 3Step**compact cleaning system for products up to 780 x 950 mm, 31" x 31,5". Cleans screen-stencils, misprints from SMD-paste residue, flux, oil, dust, grease and many more.

#### Part No. 0905300-PS-VS-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 VS takes this into consideration especially for smallest applicable quantities. The use of almost odourless solvent-free waterbased detergents ensuring a highest possible cleaning efficiency today guarantees a secure and widest possible process window. PS300 VS with adapted technology - a system for small and medium sized businesses.

#### The advantages of PS300 VS:

- 2-tank system with communicating detergent.
- Suitable for cleaning products up to 780 x 950 mm, 31," x 37,5".
- Fully automatic looped 3Step process with cleaning, MediumWipe<sup>®</sup>, warm air drying.
- Comfortable single push button operation.
- Short cycle time (< 18 mins.) depending on detergent and contamination.
- Process cycle times and maintenance monitoring PLC-controlled.
- Permanent fine filtration 3steps (100 / 50 / 10 μm).
- PS-PowerSpray with magnetic coupled pumping unit.
- Warm air compression drying<sup>®</sup> (patented registered).
- 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.
- Closed loop. No water connection, no waste water disposal necessary.
- No compressed air connection necessary!
- Noise level approx. 75 dB(A).
- Interlockable hinged door with window into the process chamber.
- Extremely compact: small footprint Euro pallet size (= < 1m<sup>2</sup>) height 160 cms.
- Certified for solar cell production.

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

| Kolb Cleaning Technology GmbH           | Tel.   | +49 (0) 2154 9479 - 38 |
|---|--------|------------------------|
| Karl-Arnold-Str. 12 · D - 47877 Willich | Fax    | +49 (0) 2154 9479 - 47 |
| Further information: www.kolb-ct.com    | e-mail | info@kolb-ct.com       |

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Page 1 0905300-PS-VS-C

Contaminations

Applications

VectorGuard

Screen-stencil

Solder frames

Soldering residues

Soldering residues





## **PS300 VS compact cleaning system**

**Operator panel** 

Hinged door

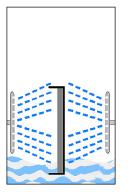






Function

Maintenance





#### Function

The PS300 VS will be loaded by placing products to clean (stencil or solder carrier) directly into the the process chamber, where protective round bars on either side in front of the spray rotors prevent damages to the stencils in case of handling errors. After the loading, the door will be closed manually and locked automatically after the START of the cleaning operation. The fully automatic 3Step cleaning process via the spray rotors will run in the pre-selected cycle time:

- Step 1 Cleaning
- Step 2 MediumWipe<sup>®</sup>,
- Step 3 Drying with compressed warm air<sup>®</sup>

The short running times (approx. 18 minutes) ensure a quick return of the products / stencils into the production process.

Additionally PS300 VS 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 VS will be controlled by a PLC. The cycle time of the respective 3Step cleaning program is freely programmable 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 be through the opened chamber door directly into the process chamber. In the maintenance and service area at the right-hand side of the system there are the filter cartridge and the integrated pump-out unit. Filter pressure will be monitored by the PLC.

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# **PS300 VS compact cleaning system**

LF-carrier

#### Exhaust







Cleaning carrier



Cleaning carrier



#### **Options / accessories for PS300 VS:**

- Exhaust control with motor driven tight-closing flap valve to reduce to high extraction / too high consumption.
- Reservoir.
- Insulation for noise reduction.
- Carriers: various sizes and configurations as per customer requirements.

| Technical data:                   |   |  |
|-----------------------------------|---|--|
| Power supply                      | : | 400 VAC, 16 A CEE / 3Ph /  |
|                                   |   | L1, L2, L3, N,PE / 50 or 60 Hz   |
| Power consumption                 | : | approx. 3 kW three phase current / clockwise                           |
| Programming and control           | : | PLC Siemens LOGO   |
| Ambient temperature (min. / max.) | : | 20°C / 50°C  |
| Noise                             | : | ca. 75 dB (A)  |
| Weight                            | : | ca. 330 kg   |
| Contents of the tank system       | : | 75 - 100 I (from model year 2015) TS / RS pH7 neutral detergent        |
| Option exhaust                    | : | connection w. capacity of about 200 - 300 m <sup>3</sup> / h necessary |
| Permanent filtration              | : | 10 µm  |
|                                   |   |  |

