

# PS02

**Fully automatic single-chamber-PowerSpray® 3Step-Process CA\*-System for products up to 750 x 850 mm, 29,5" x 33,5"**. Cleans stencils from SMD-paste residue, flux, oil, dust, grease and many more.

**Art.Nr. 090502-PS**

## Single-chamber stencil cleaning



### The situation:

Best possible cleaning of stencils 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 PS02** takes this into consideration even 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.

### The advantages of PS02:

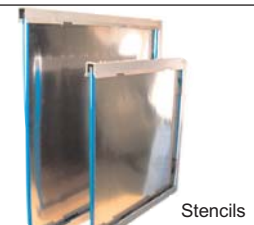
- Fully automatic looped 3Step process with cleaning, rinsing and drying - \*CA (= compressed air) supported.
- **Fully automatic** with single push button operation.
- Suitable for cleaning products up to 750 x 850 (29,5" x 33,5").
- Extremely small footprint - Euro pallet size (= < 1m²).
- Versatile product fixtures for different products, e.g. 40 / 36 / 30 mms.
- Short process time, depending on contamination and detergent (typical <13 min).
- Interlockable space-saving and transparent airlock-door.
- No explosion protection necessary, use next to the production line is possible.
- Stainless steel made with all process sections made of electrolysis-resistant PVC.
- Process cycle times and filter saturation PLC-controlled.
- 2-tank system with communicating detergent tank including cascade filtration.
- 5-stage fine filtration system. Filter 25 & 5µm.
- PS-PowerSpray with magnetic coupled pumping unit and CA-compressed air drying.
- **Closed loop**. No water connection, no waste water disposal necessary.
- Noise level approx. 75 dB(A).

### Process cycle times

The total process time of PS02 with stencils contaminated with SMD-paste is approx. 13 minutes. In general process time in the PS02 largely depends on the degree of contamination of the products to clean as well as the thickness and age of contamination.



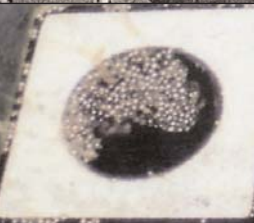
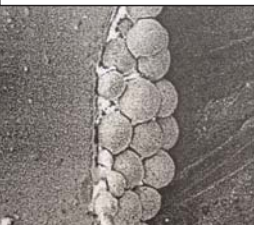
Stencils



Stencils



LF-Carrier



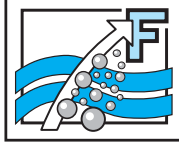
**Applications**

**Contaminations**

**W. Kolb Fertigungstechnik GmbH**  
 Karl-Arnold-Str. 12 · D - 47877 Willich  
 For further information: [www.kolb-ct.com](http://www.kolb-ct.com)

tel +49 (0) 2154 9479 - 38  
 fax +49 (0) 2154 9479 - 47  
 e-mail [info@kolb-ct.com](mailto:info@kolb-ct.com)

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



## PS02 1-chamber cascaded-tank system

Air-lock door



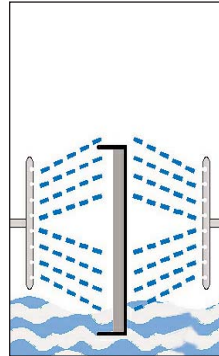
Loading



Operator desktop



Function



Maintenance



### Function:

The PS02 will be loaded using the space-saving airlock-door. Stencils to clean can directly be positioned into the tailor-made product fixtures in 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 3Step cleaning process via the spray rotors will run down in the pre-selected cycle time:

- Step 1      Cleaning
- Step 2      Rinsing
- Step 3      Drying with compressed air

The short running times ensure a quick return of the Stencils into the production process.

Additionally PS02 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 waterbased cleaning detergents qualified by the system manufacturer.**

### Programming / control

PS02 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.

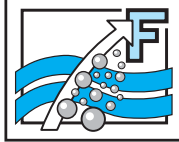
### Service and maintenance

Special care was taken to ensure an easy maintenance in the shortest possible time. The tank level is easily controllable via the illuminated transparent inspection opening in the front door of the system. Filling of the tank will be through the opened air-lock door directly into the process chamber and from there into the tank underneath. In the maintenance and service area at the right-hand side of the system there are the 2-stage fine filtration 25 $\mu$  and 5 $\mu$  inline and the integrated pump-out unit.

For cleaning requirements with higher contamination respectively with more than 5 cleaning cycles per day the use of systems with separate detergent and rinse water / detergent filtration (in contrast to the systems with one communicating detergent) is more economical. Taking into consideration a higher detergent consumption, the quality of cleaning and the life span, the **kolb** PS07 ST in such cases is the better solution.

**W. Kolb Fertigungstechnik GmbH**  
Karl-Arnold-Str. 12 · D - 47877 Willich  
For further information: [www.kolb-ct.com](http://www.kolb-ct.com)

tel            +49 (0) 2154 9479 - 38  
fax            +49 (0) 2154 9479 - 47  
e-mail        [info@kolb-ct.com](mailto:info@kolb-ct.com)



# PS02 1-chamber cascaded-tank system

**Status light**



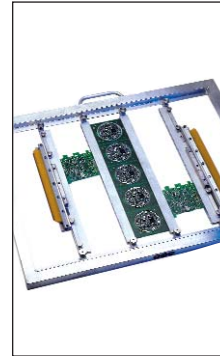
**Exhaust**



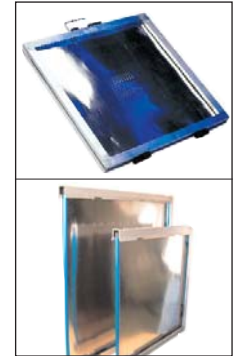
**Reservoir**



**LF-carrier**



**Washing frames**



**Options / accessories for PS02**

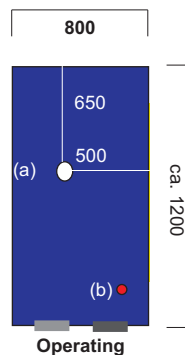
- Status light 3-fold for the system status monitoring from the distance.
- Exhaust control with motor driven tight-closing flap valve to reduce to high extraction / too high consumption.
- Reservoir with screwed and sealed front and overflow control, PLC controlled.
- Carriers: various sizes and configurations as per customers` requirements.

**Technical data:**

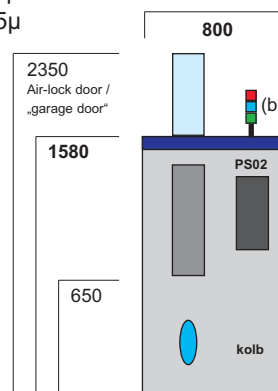
Power supply	:	standard 240 V, 16 A, AC plug L1, N, PE/ 50 or 60 Hz
Power consumption	:	approx. 1 kW
Compressed air:	:	6-8 bar, approx.. 400 - 600l / min. - only when drying
Programming and control	:	PLC Siemens LOGO
Ambient temperature	:	min. 20 °C / max. 50°C
Noise	:	ca. 75 dB (A)
Weight	:	ca. 300 kg
Contents of the tank system	:	75 liters pH-neutral cleaning detergent
Option: Exhaust	:	connection w. capacity of approx. 200-300 m³/h necessary
5-stage filtration system	:	1. coarse filter <2mms 2. cascaded-sediment- filter step tank 1L 3. cascaded-sediment-filter step tank 2R 4. fine filter cartridge 25µ 5. fine filter cartridge 5µ

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

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



**Front view:** with optional status light (b)



**W. Kolb Fertigungstechnik GmbH**  
Karl-Arnold-Str.12 · D - 47877 Willich  
For further information: [www.kolb-ct.com](http://www.kolb-ct.com)

tel +49 (0) 2154 9479 - 38  
fax +49 (0) 2154 9479 - 47  
e-mail [info@kolb-ct.com](mailto:info@kolb-ct.com)