

PSB 100 V70

High end DCB cleaning system

Fully automatic hybrid system, able to operate two different processes in two fully separate cycles: **Fine cleaning of screens / stencils (2 screens per cycle) or misprints as well as **maintenance cleaning** of solder frames, carriers, magazines, filter steel sheets, etc.**



Part No. 0905100-PSB-V70

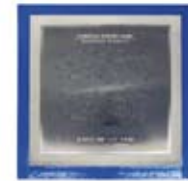
The situation

Efficient cleaning of production tools is prerequisite for safe processes in production and thereby lowest failure rates after picking and placing.

The **kolb** system PSB100 V70 offers two fully separate technologies and processes within one system: 1. **Fine cleaning** for screens, stencils and misprints using a vertical spray rotor system and 2. **maintenance cleaning** (solder carriers, magazines, machine parts) with a horizontal rotor system. The cleaning processes work with independent circuits and separate cleaning tanks. This allows the choice of the most suitable detergent for every task and ensures the highest possible cleaning efficiency. In cooperation with modern aqueous (solvent free*) detergents with hardly any unpleasant odors the system delivers highest cleaning efficiency and a widest possible process window.

The advantages of PSB100 V70

- Capacity: 2 screens / stencils 640 x 640 mms (25" x 25") or 710 x 583 mms (28" x 23") (suitable for the efficient cleaning of PumpPrints) or 7 - 10 solder carriers per cycle.
- Automatic process detection when stencils are loaded.
- Comfortable push-one-button operation.
- Three tank system with three separate circuits.
- Fully automatic 4step process: cleaning, MediumWipe®, rinsing, compression® drying.
- Fine filter system 10µm for the cleaning circuits tank A and tank B.
- Water-free operation possible: Due to the separate three tank configuration the system can operate with suitable cleaning / rinsing detergents for rinsing.
- Small parts cleaning in a suitable wash cart.
- Vertical (fine cleaning) and horizontal rotor system (maintenance cleaning)
- Permanent rotor run control as an option.
- Process and service intervals SPS controlled.
- Event issuing and software control via touch screen.
- SPC data recording and importing by scanner possible.
- Made of stainless steel, process sections are made of electrolysis resistant elements.
- Installation close to the production line possible; no special protection required.
- Extremely compact: 1,6 qm floor space required.
- All safety relevant devices are standard features in the basic system configuration.



Screen stencil



Stencil



Solder carriers



Misprint

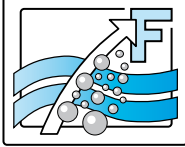


ESD boxes

Applications

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PSB100 V70 hybrid multi cleaning system

Process chamber



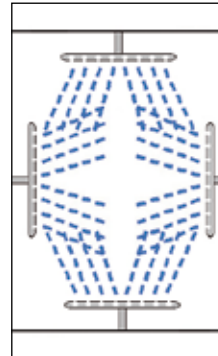
Loading



Operator panle



Function



Monitoring



Function

Loading: Products-to-clean can be positioned comfortably into product fixtures. After the loading the hatch will be closed and automatically safety locked at start. All relevant data of the fully automatic 4step process cycle is displayed on the touch screen monitor.

System control / configuration

The PSB100 V70 is controlled by a PLC. Setting and monitoring will be entered/read out via the color touchscreen (industry-PC with Windows CE). The cycle time of the respective 4step-cleaning program is freely adjustable in the PLC. The operator display contains two program selection switches. A twofold switch for stencil cleaning and a threefold switch for maintenance cleaning. Up to 99 further programs can be configured and selected using the touchscreen. The control system provides a recall function for all event messages from PLC memory. All PLC data can be transferred via an optional possible network connection to a PC or be saved on a SD-memory card or via USB access. The changeover between these switches can be operated by an automatic detection, which recognizes when a stencil is positioned into the chamber.

Program No:

- | | |
|-------------------------|----------------------|
| 1. SMD-paste (Stencil) | 3. Solder carriers |
| 2. SMD-glue (PumpPrint) | 4. Boxes / magazines |
| | 5. Machine parts |

Maintenance

During the development of the PSB100 V70 special care was taken to ensure a comfortable and easy handling for the operator and the maintenance personnel. The system has a service access with a door at the right hand side. In this service area there are the pump-out set, the optional re-dosage unit (detergent container of 25 l), additive container of 5 l). Furthermore there is space for an optional resin cartridge for DI-water processing. The tank levels will be controlled automatically by the PLC which will indicate min-level or max-level with a respective message. This PLC likewise controls pressure values of the fine filtration as well as the service and the maintenance cycles.

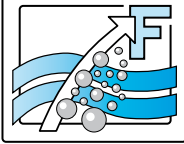
Standard equipment: Compression® drying, wash cart, fine filter tank A, DI-regulation unit, X-Power pump unit, water exchange / pump out for tank B and tank C.

Options / accessories: Exhaust unit, Re-dosage (detergent & additive), MediumWipe®, status light (3- or 5-fold), heater tank B, filter tank B, automatic rotor run control, XL-Power pump unit, reservoir, MB/DI cartridge, PLC data and scanner unit, insulation.

Please note: The cleaning system may only be operated with detergents and other raw materials and supplies certified by the manufacturer!

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5-stage signal



Re-dosage



DI processing



Reservoir



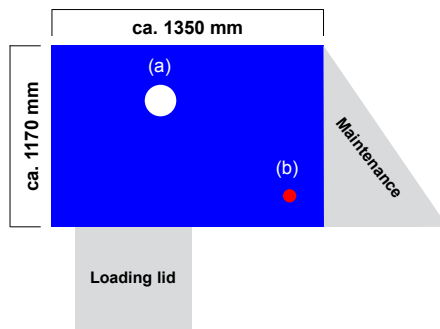
Exhaust unit



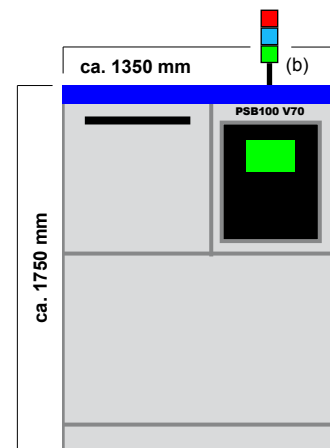
Technical data

Process chamber dimension	:	W 700 • D 710 • H 720 mms
Capacity	:	2 screens / stencils 640 x 640 mms (25" x 25") or 710 x 583 mms (28" x 23") or 7 - 10 solder carriers
Power supply	:	400 V AC 16 A CEE / 3Ph / 50 or 60 Hz
Power consumption / control system	:	approx. 4,1 kW / PLC (EATON)
Ambient Temperature (min./max.)	:	approx. 20°C / 40°C
Tank contents cleaning	:	Tank A: approx. 50 l
Tank contents rinsing incl. saving step	:	Tank B: approx. 50 l / Tank C: approx. 110 l
Compressed air connection	:	6-8 bar (100 l / min.) MediumWipe® process
Exhaust connection (prov. by customer)	:	160 mm Ø > 200 to 300m ³ per hour
Connection water supply (tap-, DI-water)	:	3/8", hose connection 14 mms
Connection water supply (DI/VE water)	:	3/8", hose connection 14 mms (or bridging to tap water)
Connection rinse water drain	:	3/4", hose connect. 25 mms with integrated pump out system
Noise	:	63 dB (A)
Weight	:	4800 kg

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



Front view:
With optional status light (b)



IMPORTANT: All safety relevant devices e.g. safety interlock on the process chamber door overflow alarm for all tank sections, overheating protection for all heating drying elements, end switches for all motor-driven valves and drives, personnel protection insulation etc. are standard with all kolb cleaning systems and they are included in the machine base prices. **At kolb safety is standard - not an optional extra!**