

# PSB 600 V70

**Fully automatic high end high DCB and PCB cleaning system with vertical technology for highest demands in process safe ultra fine cleaning of DCB, PCB and hybrids (HDI, SiP) from contaminations such as fluxes, rosin, resin, copper, Cu oxide and aggressive solder-support substances.**

**Part No. 0905600-PSB-V70**

## High end DCB cleaning system



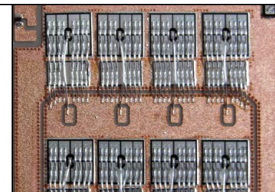
### The situation

Thorough Cleaning of DCB, PCB as well as hybrids is an inevitable process step in the production chain. De-fluxing, de-oxidizing and passivating are essential processes before wire bonding the assembled components. The requirements to fulfill such complex cleaning tasks in shortest cycle times, demand a technical configuration which catches the sensitive cleaning goods as close as possible.

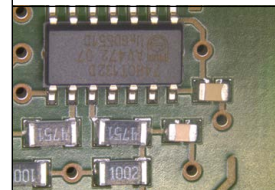
The vertical assembly of the spray rotors as well as the loading in the Duplex wash cart of the **kolb PSB600 V70** exactly meet those requirements. Due to the vertically operating rotor system the PSB600 V70 is perfectly suitable to clean also screens and stencils.

### The advantages of PSB600 V70

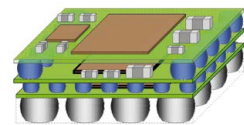
- Three tank system with three separate circuits (low running costs).
- Short cycle times due to placing the cleaning goods close to the spray rotors.
- Capacity up to 20 DCB panels (5" x 7") or 36 eurocards or 2 screens.
- Fully automatic 5step process: cleaning, MediumWipe®, rinsing (tap water), DI-water rinsing (with variable DI-water processing), compression® drying.
- VA Duplex wash cart, ESD-safe with grounding connection for the operator.
- Autom. monitoring of ionic residues contamination and gauging of rinse water quality.
- ClosedLoop reprocessing of cleaning and rinsing fluids as standard feature.
- Comfortable push-one-button operation.
- Exchange for rinse water tank B & tank C and pump out unit as standard features.
- Vertical 4 fold asynchronous spray rotor system.
- Permanent rotor run control as an option.
- Process and service intervals PLC controlled.
- Event issuing and software control via touch screen.
- PLC data recording and importing by scanner possible.
- Heater in Tank A (cleaning circuit) as a standard feature.
- Fine filter system 10µm for cleaning circuit.
- Automatic re-dosing from 25l detergent container and 5l additive as an option.
- 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: Only 1,6 qm floor space required.
- All safety relevant devices are standard features in the basic system configuration.



DCB



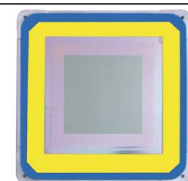
PCB



Hybrid (HDI, SiP)



Misprint

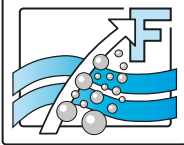


M-TeCK Schablonen

**Applications**

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# PSB600 V70 high end DCB cleaner

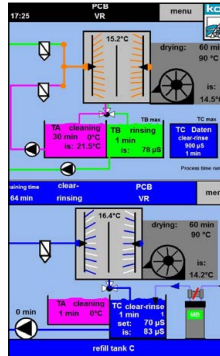
**Process chamber**



**Operator panel**



**ClosedLoop**



**Maintenance**



**Monitoring**

warning chart	
error chart	
process documentation	
service (1)	
operating data (2)	
process parameter (3)	
change user level: RESET (0)	
filling level TA max	1 information door closed
filling level TA min	IA1 pressure sensor
filling level TB max	IA2 conductivity TC
filling level TB min	IA3 chamber temperature
overflow switch	3 free
filling level coverage	IA5 analog value pH rinsing
IA6	temperature TA
DI 1	DI 2
DI 3	DI 4
DI 5	DI 6
DI 7	DI 8
DI 9	DI 10
DI 11	DI 12
DI 13	DI 14
DI 15	DI 16
DI 17	DI 18
DI 19	DI 20
DI 21	DI 22
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DI 97	DI 98
DI 99	DI 100

**Function**

Loading: The DCB panels or eurocards are placed into the Duplex wash cart. After the loading the hatch will be closed and automatically safety locked at start. All relevant data of the fully automatic 4step process cycle with vertical close up spray power is displayed on the touch screen monitor.

**System control / configuration**

The PSB600 V70 is controlled by a PLC. Setting and monitoring will be entered / read out via the color touchscreen (industry-PC with Windows CE). The applicable cycle times and parameters are freely adjustable in the PLC. After being configured once, the system runs only with the use of one button (Start / Stop). The 3-stage program selector switch on the operator panel allows different cleaning program presets. 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.

**Process parameters**

The cycle time depends on the degree and nature of contamination, the thickness of such contamination, the cleaning detergent, possible water pockets that influence drying as well as process parameters.

**Maintenance**

During the development of the PSB600 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. Easily accessible behind the cover door are likewise the tanks for manual filling and servicing. The tank levels will be controlled automatically by the PLC which will indicate min-level or max-level with a respective warning. This PLC likewise controls pressure values of the fine filtration as well as the service and the maintenance cycles.

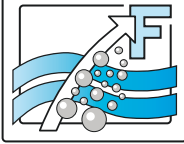
**Standard equipment:** Compression® drying, Duplex wash cart, heater tank A, fine filter tank A, auto DI-processing unit, X-Power pump unit, water exchange / pump out for tank B and tank C.

**Options / accessories:** Exhaust unit, Re-dosage (detergent & additive), MediumWipe®, status light (3- or 5-fold), 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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# PSB600 V70 high end DCB cleaner

**Duplex cart**



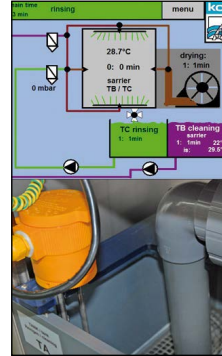
**Re-dosage**



**DI processing**



**Heater elements**



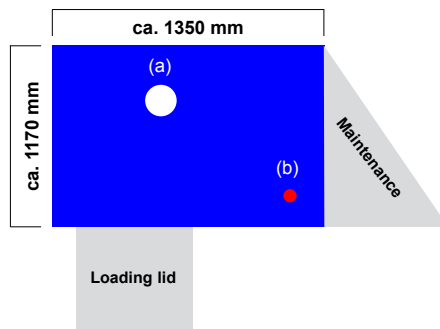
**PLC computer**



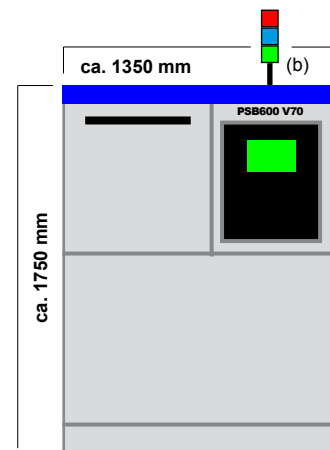
**Technical data**

Process chamber dimension	:	W 700 • D 710 • H 720 mms
Capacity	:	20 DCB 5" x 7", 36 eurocards
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
Exhaust connection (prov. by customer)	:	160 mms Ø > 200 to 300m <sup>3</sup> per hour
Connection water supply (Tap water)	:	3/8", hose connection 14 mm (by cutomers: inlet water quality, < 350 µS conductance value (< 10° dH) or option descaling unit)
Connection water supply (DI /VE water)	:	3/8", hose connection 14 mm (DI net by customers or bridging to tap water)
Connection rinse water drain	:	3/4", hose connect. 25 mms with integrated pump out system
Noise	:	74 dB (A)
Weight	:	530 kg

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



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



**Certifications:**

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

