

PS 300 2HY

Compact stencil cleaning hybrid system



Single-chamber PowerSpray® 3-4Step fully automatic cleaning system for products up to 780 x 950 mms, 31" x 37,5". For the cleaning of screen-stencils mounted PCBs, misprints, PumpPrint stencils, solder frames and carriers from SMD-adhesive, SMD-paste, flux, oil, dust, grease and many more. Part No. 0905300-PS-2HY-C

The situation

Das PS300 2HY is a multifunctional compact hybrid system, which not only solves sophisticated solvent-free* fine-cleaning tasks but also delivers best ultrafine-cleaning abilities in the field of PCB's. According to requirements this „all in one“-system is the optimum completion of a high value adding production chain. Wether it is cleaning of screen-stencils or PumpPrints, PCBs or misprints or solder carriers and masks: Due to its 2-tank combined technology the PS300 2HY can deliver best results for any purpose.

The advantages of PS300 2HY:

- Three integrated circuits in a two tank combined system.
- Fully automatic 3-4step process: cleaning, rinsing (tap water), DI-water rinsing (with variable DI-water processing), drying with VMH®* hot air by 3-fold digital control.
- ClosedLoop reprocessing of cleaning and rinsing fluids as standard feature.
- Comfortable single push button operation.
- Short cycle time (<15 min), depending on contamination and detergent.
- 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).
- Automatic exchange for rinse water including pump out unit.
- Variable DI- / VE water mixing and blending unit.
- Automatic re-dosing from 25l detergent container and 5l additive.
- Spare space for resin cartridge to be integrated into the system.
- VA machine frame with stainless steel front.
- Process sections made of electrolysis and high temperature resistant elements.
- Installation close to the production line possible; no special protection required.
- Extremely compact: Only 80 x 150 cm floor space required, height 160 cm.
- All safety relevant devices are standard features in the basic system configuration.



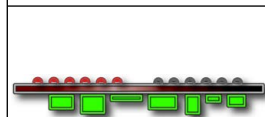
Stencils, PumpPrints



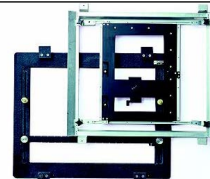
Screens



PCBs



Misprints

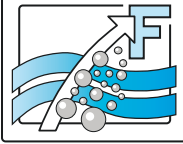


Solder frames

Applications

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PS300 2HY compact cleaning system

Loading



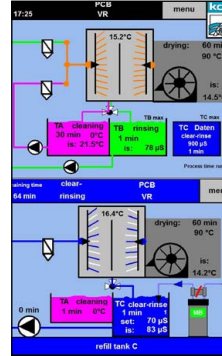
Operator panel



Traceability



Closed Loop



Reservoir



Function

The PS300 2HY will be loaded using the space-saving hinged door. Products / stencils to clean (stencil, PCBs 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 by a Schmersal safety switch after the START of the cleaning operation. All relevant data of the fully automatic 4step process cycle is displayed on the touchscreen monitor.

System control / configuration

The PS300 2HY 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. The access to the control system is organized over five password levels.

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

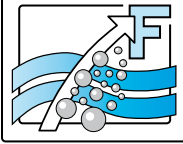
During the development of the PS300 2HY special care was taken to ensure a comfortable and easy handling for the operator and the maintenance personnel. The system has a service access with a door at the right hand side. In this service area there are the pump-out set, the optional re-dosage unit (detergent 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.

Options / accessories: Exhaust unit, re-dosage (detergent & additive), heater tank A, DI-control unit, MediumWipe®, 5-fold status light, water exchange including pump out unit for tank B / C, five-fold status light, reservoir, MB / DI cartridge, PLC data and scanner unit, various carriers.

Please note: Before running the cleaning system with detergents and / or raw materials of other suppliers than kolb, please make sure that these products are certified by kolb Cleaning Technology GmbH!

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PS300 2HY compact cleaning system

Status light



Exhaust



Re-dosage



Maintenance



Heater



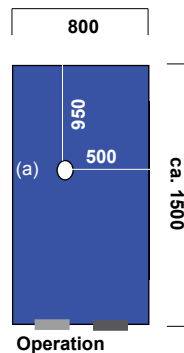
Technical data

Power supply	:	400 V, 16 A CEE/ 3PH / 50 or 60 Hz
Power consumption	:	approx. 3,8 kw
Programming and control	:	PLC Eaton with touch graphic display
Ambient temperature	:	20° C / max. 40° C
Tank contents cleaning	:	Tank A: approx. 65 l
Tank contents rinsing incl. saving step	:	Tank B / C: approx. 35 l up to 65 l possible
Filtration	:	1. Full flow coarse filter < 2mm 2. Cascaded sediment filter inside the tank 3. 20" BB bag filter stage 100µm 4. 20" BB bag filter stage 50µm 5. 20" BB bag filter stage 10µm
Exhaust connection (prov. by customer)	:	160 mms Ø > 200 to 300m ³ 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 mm with integrated pump out system
Noise	:	63 dB (A)
Weight	:	440 kg

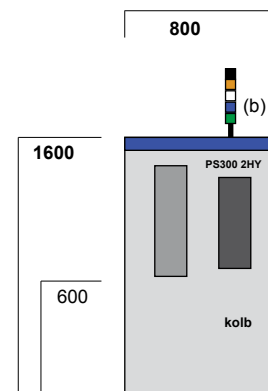
Foot print and max. space required for service and maintenance (in mms)

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 and watersaving processing, for easy operability and for the standard integration of comprehensive safety features.

