



By EasyBraid Co.

Super SWASH

Automatic Spray Cleaning System for Stencils, Misprints and Defluxing



Good cleanliness of the stencils is a decisive parameter for good printing quality. Partially clogged apertures lead to serious printing errors. Growing demands on the print quality of small chip BGA, QFP, CSP and other package types requires a very safe cleaning process, which is not dependent on the operator.

It is advantageous to clean eventually misprint and PCB after soldering in the same equipment.

Increasing environmental demands make economical and waste free solutions a must.



- three-years full warranty period
- fully closed-loop system - no wastes
- 3-step filtration and reclaim of cleaners
- very low consumption of cleaning medium
- 4-step integrated DI water filtration and reclaim
- conductivity of DI water monitoring & control integrated
- extremely short cycle time provides high cleaning capacity
- capable to clean Hi-dense PCB with low stand/off & no clean fluxes

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Flexible solution for high-tech cleaning

- Designed for use with non-inflammable cleaning agents.
- The consumption of cleaning chemicals is drastically reduced. due to innovative design of the cleaning chamber, spray system, exhaust port with PC control and fog absorber.
- Process can be easily monitored by means of the window at the front and light wall behind the stencil.
- Cleaning medium temperature up to 60°C.
- Rinsing water temperature up to 40 °C.
- Drying temperature up to 120°C.
- Very safe spray process due to well balanced impact of spraying nozzles. Suitable for the finest stencil structures with very low thickness.
- Fully closed loop system with integrated DI water plant and contamination measuring in the basic configuration (excluding Super SWASH marked with IR, IR+).
- Cleaning agent is efficiently regenerated inside the machine.
- Ergonomic design for easy operation.
- Programmable range of spraying, rinsing and drying fields.
- Optional two-step rinsing for larger capacity processes.
- Optional pressure air tool for faster PumpPrint® stencil cleaning.
- Optional programmable exhaust fan integrated to the system.
- All parameters are controlled by PC under WINDOWS 7® and touch screen interface.
- Fully programmable process with password protection and program library.
- Logging and traceability of all process parameters, option of bar-code or 2D code reader.
- 3-way and 2-way valves to switch the pump/nozzle lines
- Continuous level measuring in all tanks
- All tanks can be drained to zero level with circulating pump
- Draining process can be monitored and secured by software
- Electronic nozzle pressure measuring
- Spray attack angle adjustable for special applications
- LED lighting panel to decrease maintenance
- Glass door lined with stainless to prevent chipping
- Stiffening of door lifting mechanism
- Drying-air inlet provided with air filter
- Machine failure history logging
- Full traceability software in basic configuration
- Memory stick socket on main panel
- Operation manual integrated into machine software

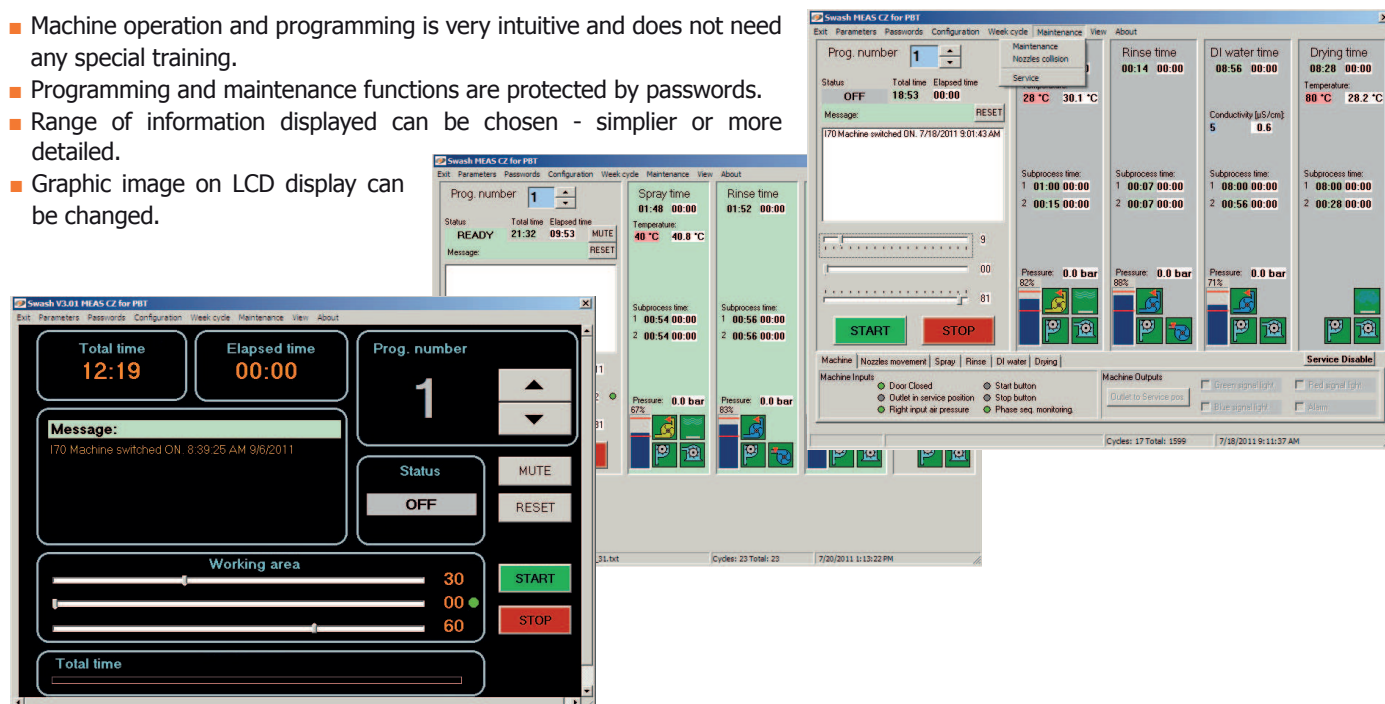
Process rating

	For printing			Defluxing		After soldering	
	Stencil	Pump Print	Misprint	PCB low volume	PCB high volume	Solder pallet	Flux traps
Super SWASH I	***	***	*	*		***	
Super SWASH IR (+)	***	***	*	*		***	
Super SWASH II	***	***	***	***	**	**	
Super SWASH IIR (+)	***	***	***	***	***	***	
Super SWASH III	***	***	***	***	***	***	
Capacity:	6 pcs/hr	2 pcs/hr	1 m²/hr	1 m²/hr	1 m²/hr	6 cycle/hr	

Legend:	excellent	***
	good	**
	possible	*
	no-good	

Control system

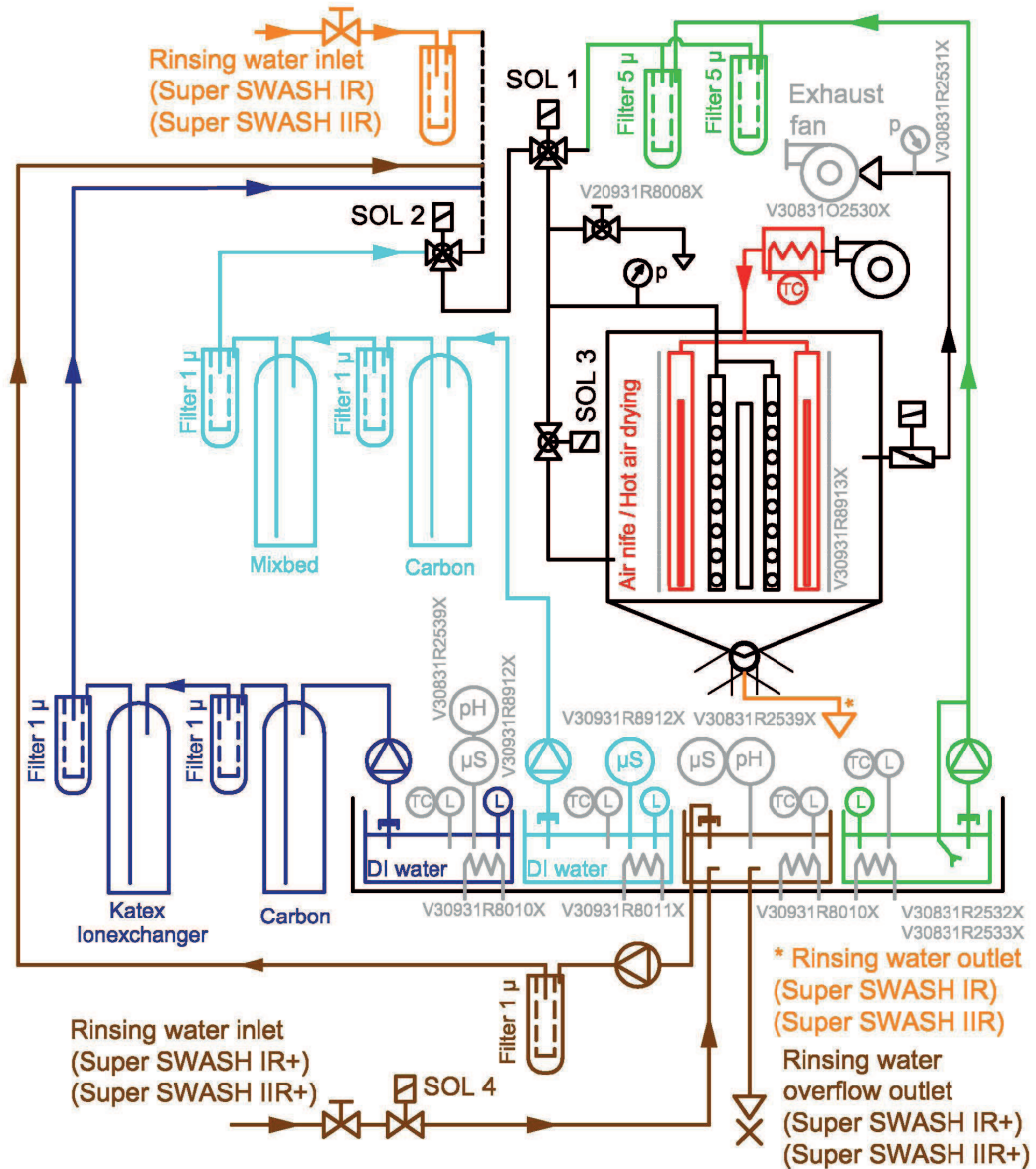
- Machine operation and programming is very intuitive and does not need any special training.
- Programming and maintenance functions are protected by passwords.
- Range of information displayed can be chosen - simpler or more detailed.
- Graphic image on LCD display can be changed.



Machine can be built in following configurations:

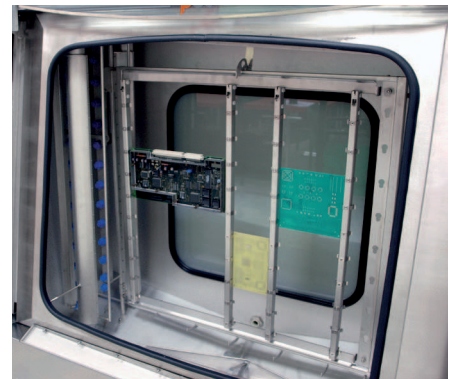
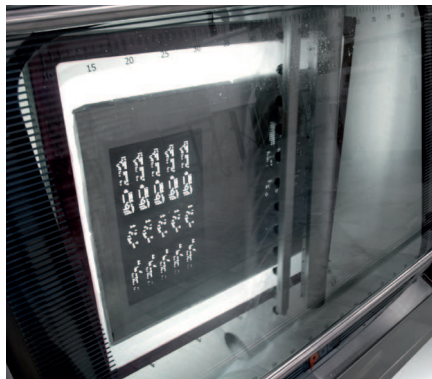
	Cleaning	Rinsing 1.	Rinsing 2.	Drying
Super SWASH I	Cleaning agent	—	—	Hot press-air
Super SWASH IR (+)	Cleaning agent	Tap water	—	Hot press-air
Super SWASH II	Cleaning agent	—	DI-water	Hot press-air
Super SWASH IIR (+)	Cleaning agent	Tap water	DI-water	Hot press-air
Super SWASH III	Cleaning agent	Pre DI-water	Fine DI-water	Hot press-air

Process diagram - all configuration



Cleaning chamber

- Compact configuration and vertical orientation of the spray and air nozzles provides very efficient uniform cleaning and drying impact on the complete working area.
- Very smooth inner face of the chamber minimises drag-out and cleaner consumption.
- The light wall makes easier the inspection cleaning results during process.



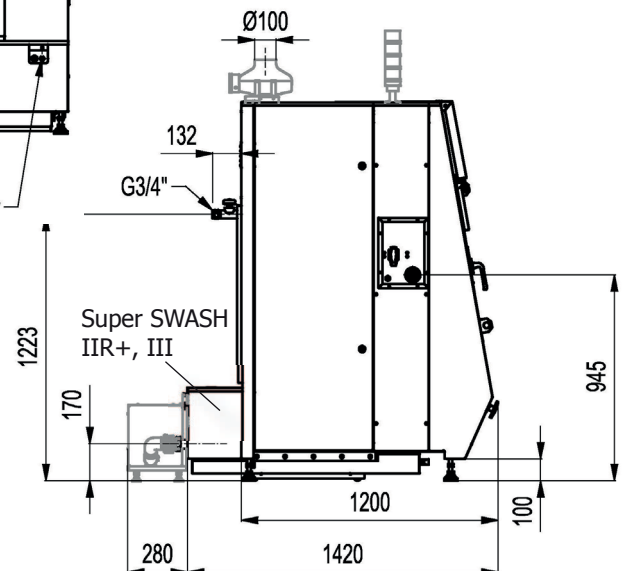
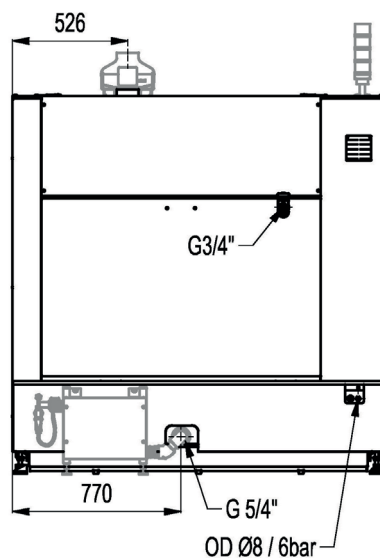
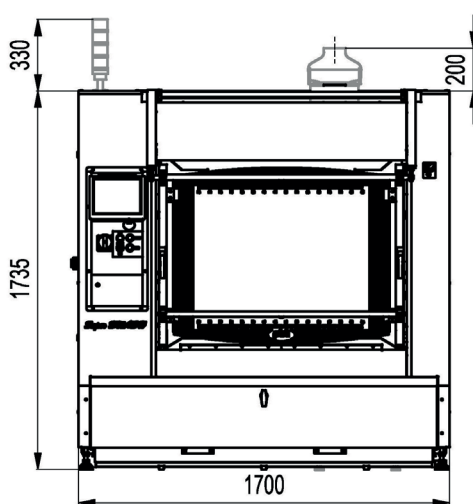
Special air hand gun for PumpPrint® stencil cleaning

- Manual air gun for pre-cleaning that opens the apertures in PumpPrint® stencils filled with the glue.
- Thus total cleaning time for Pump-print stencils can be reduced by 50 %.
- Manual air gun and pressed air outlet are situated at the front of machine
- The tool is a chargeable option.



Technical data

Maximum dimension of object being cleaned	L x W x H	815 x 75 x 780 mm
Cleaning agent volume		57 - 61 litres
Rinsing DI water volume		57 - 61 litres
Heating temperature	cleaning	max. 60 °C
	rinsing	max. 40 °C
	drying	max. 120 °C
Typical cycle time (depends on application)		Stencil: 12 min, PCB defluxing: 30 min
Control system		industrial PC, WINDOWS 7® Home Premium
Software language version		English, Czech (other on request)
Mains power supply; protection; plug		400 V, 50 Hz (3+N+PE); 32 A; EU 32 A
Installed power (depending on configuration)		8 - 21 kVA
Power consumption during operation (average)		5 kW
Compressed air supply pressure; consumption		0.6 - 0.8 MPa; 1 l/min
Exhaust capacity; port diameter		200 - 250 m³/hr; 100 mm
Weight of empty machine (depending on configuration)		495 - 620 kg



PBT local distributor

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