

Mini SWASH

AUTOMATIC CLEANING SYSTEM FOR STENCILS AND PCBA



NEW!

- Mini SWASH III with dual DI water filtration
- Cleaning of PCB assemblies
- New Name represents wider use
- Software for easy operation
- Traceability to fully trace and archive process
- Fixing system in chamber for frame
- Adjustable fixing according to frame dimension

Direct spray and dry

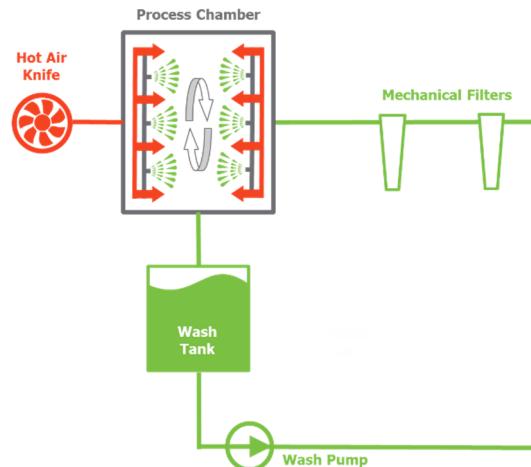
- Synchronous spraying and drying from both sides, which prevents stencil from damaging.
- Spraying and drying arm are engine driven which ensure stable the opposite position.
- Direct drying ensure higher efficiency of heat transfer to stencil surface without necessity to warm chamber
- Direct drying from air blade (heated up to 90°C)
- Drying enables to dry directly only the goods but process chamber walls remain cool.
- Some moisture can remain on the process chamber walls, but the cleaned goods are perfectly dried.
- Drying process is concentrated only to the programmed area.



Four standard types to meet customer requests

- Open or closed circulation of rinse loop
- PLC control, touch screen
- Ergonomic and safety design
- Wide choice of options to achieve right configuration:
- Heating of cleaning medium up to 60 °C as option
- Lower front- edge height
- Anti-collision integrated system
- Process chamber electronically locked during cycle
- Exhausting flap save cleaner consumption
- Conductometer optionally for all version with water rinse
- Small footprint
- Signal tower
- Pump unit for drain water available as option
- Stand for frame integrated on the machine
- Machine on casters
- Can be situated from two sides to wall

Mini SWASH I



Processes

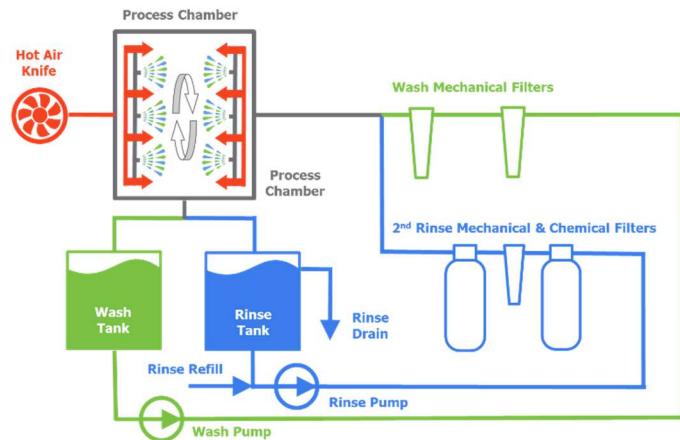
- Washing (heated up to 60°C)
- Drying (heated up to 90°C)

Application

- Removing solder paste residues from any type of stencils and screens.
- Removing SMT Glue residues from any type of stencils, screens or Pump-Print stencils.
- Ready for self-cleaned chemicals



Mini SWASH II



Processes

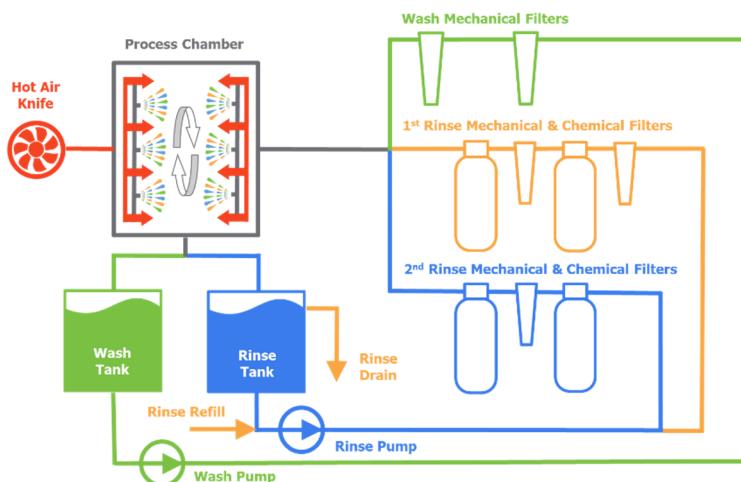
- Washing (heated up to 60°C)
- Closed rinsing loop with DI water chemical filters (25 L Activated carbon + 25 L Ionexchanger) or Open rinsing to ready to connect to external DI water source
- Drying (heated up to 90°C)

Application

- Removing solder paste residues from any type of stencils and screens.
- Removing SMT Glue residues from any type of stencils, screens or Pump-Print stencils.
- Misprints cleaning of solder paste and glue (closed loop type)



Mini SWASH III



Processes

- Washing (heated up to 60°C)
- 1st. closed rinsing loop with DI water chemical filters (25 L Activated carbon + 25 L Ion exchanger). Rough rinsing of cleaning board and saving of following second rinsing step. After reaching set rough conductivity, system automatically switches over to second rinsing loop
- 2nd. closed rinsing loop with DI water chemical filters (25 L Activated carbon + 25 L Ion exchanger). Fine filtering and reaching of set fine conductivity value.
- Drying (heated up to 90°C)

Advantage of dual rinsing process

- Longer lifetime of filter battery
- Required conductivity level can be reached faster. Shorter time of complete rinse process
First rinsing loop only can be programmed for stencil, while misprints and PCBA uses complete rinsing process

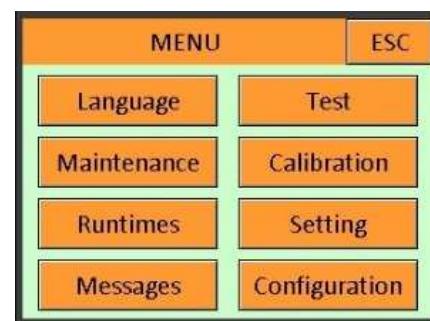
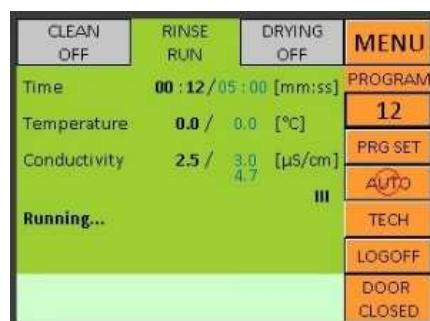
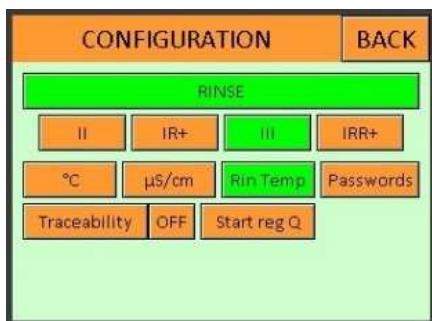
Application

- Stencil cleaning
- Defluxing, of PCBA assemblies.
- Cleaning Second side misprints on complex assemblies



Machine control system

- NEW software for easy operation
- Newly traceability to fully trace and archive cleaning process and cleaned subjects
- Data transfer to factory system through LAN possible
- PLC with high level of resolution and function
- Wide possibilities to set and control parameters, configuration and maintenance
- Graphics representation for easy operation
- Three level access with password: Operator, Process engineer and Service engineer
- Various language version standardly available



Maintenance access



Cleaning decanter easy accessible from the rear



Rinsing decanter easy accessible from the front

Mini SWASH advantage in comparison with conventional spray systems

HIGH PRESSURE/ HIGH FLOW SPRAY SYSTEM

Majority of machines on the market are using pressure at nozzles 0,5-1,0 Bar but Mini SWASH has spraying pressure of cleaning liquid -at nozzles 3,0 Bar. This helps to increase efficiency of cleaning in apertures, deep openings (Pump-print stencils). The result is shortening of the cleaning time.

SYNCHRONOUSLY DRIVEN ROTATION MANIFOLDS

There is no risk of damaging thin stencils by higher pressure, because spray arms are moving synchronously and spray beam pressure is balanced from both sides of the stencil.

Majority of stencil cleaning systems uses non-driven (liquid reaction forces driven) rotating arms. Spray beam impact can heavily damage stencil. The most critical is, that such damage is not visible at first sight. The rotating, uncontrolled spray arms induce load to the stencil sheet from both sides. If the arms are in 90° angle each to other, the impact from both sides cause increasing of the tension in the center of stencil. For thin stencil with narrow bridges between apertures, it can cause plastic elongation of those bridges and bowing of the plane. Such stencil does not seal sufficiently anymore and must be exchanged. Also, the glued stencil are critically tensioned in the edges of the frame and this release the tension of the stencil after some time.

Therefore Mini SWASH use controlled synchronous rotation of spray arms.

