

Mini SWASH

AUTOMATIC CLEANING SYSTEM FOR STENCILS AND PCBA



Mini SWASH I
Mini SWASH II (open loop)

Mini SWASH II
(closed loop)

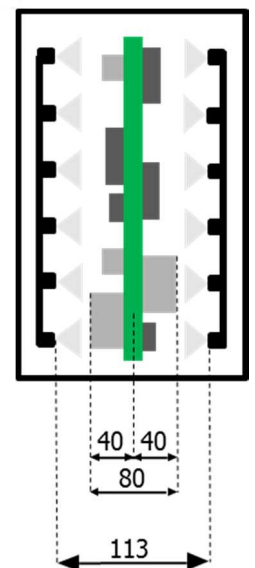


Mini SWASH III
(closed loop)



Usable dimension of chamber (mm)

Standard max. thickness
PCB + components:
One side 40 mm +
Second side 40 mm (see
drawing)
(Other cleaned material
size on request)



Process data:

Usable space (mm): WxLxH - W-left/right, L-front/rear, H-height	740 x 80 x 740 (on request 820 x 80 x 800)
Standard frame dimension (mm)	795 x 40 x 740
Max. frame dimension - only on request (mm)	820 x 40 x 740
Min. frame dimension - only on request (mm)	150 x 25 x 0
Min. frame dimension (mm)	150 x 40 x 0 180 x 25 x 0
Typical consumption of cleaning agent w/o load (per one cycle)	0.12 liter
Stencils capacity/ dimension	1 pc / 29" (32" on request)
Stencils typical total cycle time	15 - 30 min
Stencils quantity per hour	2 - 4 pcs
Stencils typical consumption / cycle (cleaning agent)	0.15 – 0.2 liter
PCB defluxing and Misprints - max usable area at the disposal	0.45 m ²
Max load in 3U-160 eurocards (100x160mm) per one cycle	24 pcs
PCBA + Misprints 3U-160 eurocards (100x160mm) typical total cycle time	30 - 60 min
PCBA + Misprints 3U-160 eurocards (100x160mm) quantity per hour	24 - 48 pcs
PCBA + Misprints typical consumption / cycle (depends on PCB shape and pollution)	0.3 – 0.4 liter

Typical consumption are based on values from the field, however cannot be guaranteed because of other factor influence.

Technological data

Standard S	Not possible N	I	II (open loop)	II (closed loop)	III (closed loop)
Number of cleaning phases		2	3	3	3
Washing heating		max. 60 °C	max. 60 °C	max. 60 °C	max. 60 °C
Rinsing		N	Tap water	DI water	DI water
Drying		max. 85 °C	max. 85 °C	max. 85 °C	max. 85 °C
Mechanical filtration (Cleaning)		20 µm, 5 µm	20 µm, 5 µm	20 µm, 5 µm	20 µm, 5 µm
Mechanical filtration (Rinsing)		N	5 µm	5 µm, 1 µm	5 µm, 1 µm
Chemical filtration (1 st . Rinse loop)		N	N	25 L Activated carbon, 25 L Ionexchanger	25 L Activated carbon, 25 L Ionexchanger
Chemical filtration (2 nd . Rinse loop)		N	N	N	25 L Activated carbon, 25 L Ionexchanger
Washing tank volume max/min		62/34 l	62/34 l	62/34 l	62/34 l
Rinsing tank volume max/min		N	27/17 l	33/17 l	33/17 l
Pressure on the nozzles with new filters (Cleaning)		2,6 bar	2,6 bar	2,6 bar	2,6 bar
Flow with new filters (Cleaning)		48 l/min	48 l/min	48 l/min	48 l/min
Pressure on the nozzles with new filters (Rinsing)		N	2,6 bar	1,6 bar	1,6 bar
Flow with new filters (Rinsing)		N	48 l/min	37 l/min	37 l/min
Space between the nozzles		80 mm			
Speed of rotary arms (motor drive)		12-15 n/min			
Number of installed nozzles		51 (= 21 + 4 + 22 + 4)			

Note: Approximate values of pressure and flow are stated. The real values can be a bit different depending on the tolerances of used components. These differences have no effect on cleaning process.

Technical parameters

Machine dimensions	1 503 x 777 x 1 191 (1 546, 1 556) mm 642 x 510 x 1 195 mm (filtration unit for II type) 2x 642 x 510 x 1 195 mm (filtration unit for III type)
Weight (without liquid)	250 kg 90 kg (filtration unit for II type)
Maximum power input	5 - 9,9 kVA
Machine noisiness	L _A (eqv) < 70

Connection

Electric mains:

- Power supply voltage: 3x 230/ 400 V, 50 Hz
- Protection: 3x 20 A
- Connection: 3, N + PE (five-wire plug 32 A)

Pressure air:

- Pressure: 0,6-0,8 MPa
- Class of air quality: 3.4.3. (according to ISO 8573-1)
- Connection (pos. 3): \varnothing 8 mm (SMC)

Note: Pressure air consumption < 1 l/min

Exhaustion:

- Under-pressure 50-80 Pa (it corresponds to 5-8 mm of water column)
- Connection: inner \varnothing 100 mm (machine top)

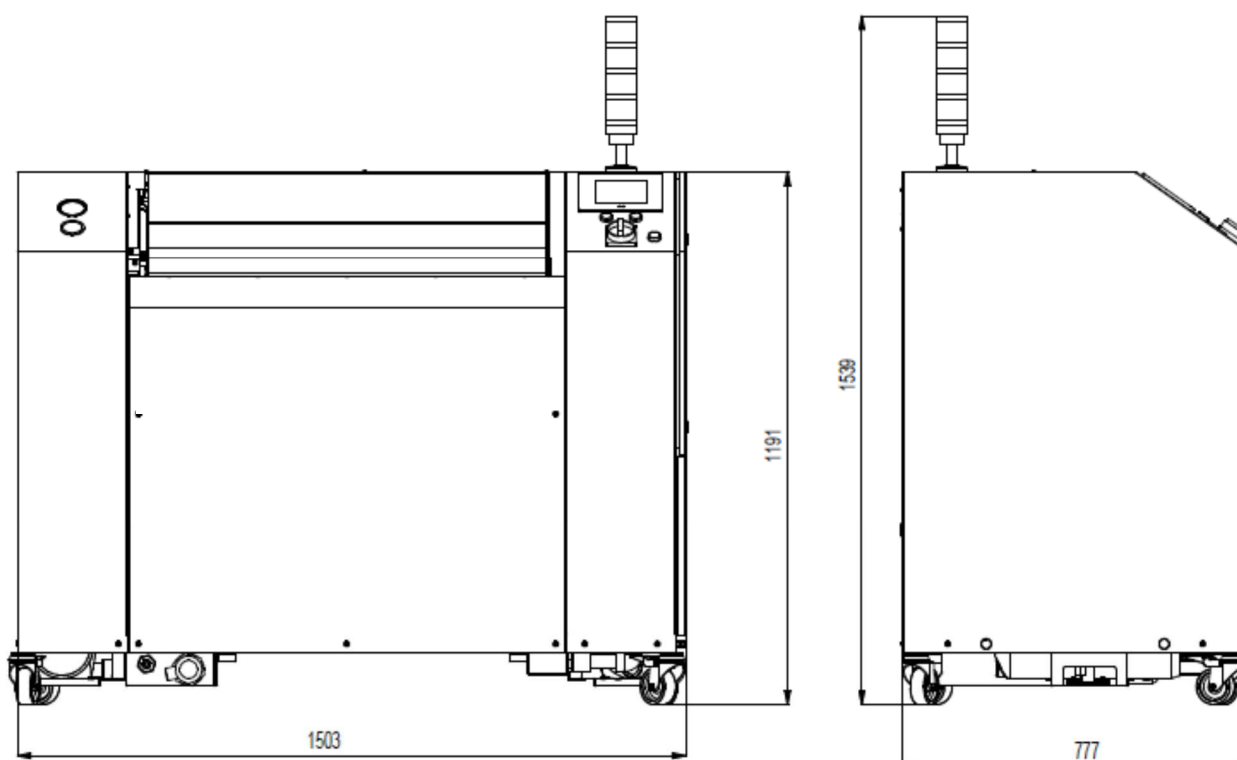
Tap water – II type, open loop only

- Pressure: min. 0,2-5 bar
- Connection: Inlet (pos. 1): G3/4" (internal thread); Overflow (pos. 2): Tube PP \varnothing 40x3,7

Dimension Mini SWASH I

Note: Machine height with the signal tower is higher + circa 355 mm, it is 1 546 mm.

Note: Machine height with the exhaust ventilator is higher + circa 365 mm, it is 1 556 mm.



Necessary working space

The following service and maintenance area is required:

- From the front side of the machine minimally 0,8 m - area for machine operation.
- The machine rear part min. 0,6 m – area for machine maintenance and service (access to decanter, filtration unit, etc).
- From the right side min. 0,8 m - area for machine service – access space into the switchboard (this space has to meet the directive IEC 60364-1:2005).
- From the left side 0,6 m
- Over the machine 1 m - It is space for door opening, inserting of washed elements.

Top view:

