

ATMA AT-EWP Series

Electric PCB Wet-Film Screen Printer



AT-EW80P



AT-EW120P

Engineered for screen printing photo imageable resistance solder mask plug-via or non-plug-via wet film processing with double squeegee bidirectional printing + bidirectional peel-off + bidirectional table displacement.

Precise control of printing parameters increases printing speed and yield rate for PCB production.

Suitable for Rigid Printed Circuit Board, Flexible PCB, PCB legend, Photo Resistance Solder Mask, Wet-Film Plug-via-holes, Surface Mounted Technology, Carbon/Resin Plug-via-holes, and other PCB screen printing.



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INNOVATION
RESEARCH AWARD



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OF SME



NATIONAL
QUALITY
AWARD



ISO 9001
ISO 14001
CERTIFIED



NATIONAL
LITTLE GIANT
AWARD



CE
CERTIFIED



ATMA AT-EWP Series

Electric PCB Wet-Film Screen Printer



Specifications:

Model	AT-EW80P		AT-EW120P		AT-EW160P	
	Metric	US Standard Units	Metric	US Standard Units	Metric	US Standard Units
Substrate Thickness	0.1~25 mm	0 - 1"	0.1~25 mm	0 - 1"	0.1~25 mm	0 - 1"
Max productivity	200~400 P/H		180~370 P/H		150~260 P/H	
Max printing area	600 x 650mm	23.6" x 25.6"	600 x 950mm	23.6" x 37.4"	600 x 1300mm	23.6" x 51"
Table Size	700 x 900mm	27.6" x 35.4"	700 x 1200mm	27.6" x 47"	800 x 1700mm	31.5" x 67"
Max Frame O/D Size	900 x 1100mm	35.4" x 43.3"	1000 x 1500mm	39.4" x 59"	1000 x 1900mm	39.4" x 75"
Printing-head Swivel Angle	±9°		±9°		±9°	
Power Source	3Φ, 220V/380V, 50/60Hz		3Φ, 220V/380V, 50/60Hz		3Φ, 220V/380V, 50/60Hz	
Power Consumption	2.6kw	2.6kw	2.6kw	2.6kw	2.6kw	2.6kw
Air Exhaust	16 L/min	0.56 cfm	17.3 L/min	0.61 cfm	21.25 L/min	0.75 cfm
Machine Weight	670 kg	1,477 lbs	800 kg	1,764 lbs	920 kg	2,028 lbs
Machine Dimension	1700 x 1300 x 1700mm	67" x 51" x 67"	1900 x 1400 x 1750mm	75" x 55" x 69"	2300 x 1400 x 1710mm	90" x 55" x 67"

Features and Benefits

- A. German S.E.W. Motor powers screen up / down position and servo driven print head travel. Provides high cycle speed with smooth mechanical movements, low noise and accuracy.
- B. Print table displacement can be set incrementally in X/Y axis to follow printing stroke correcting bi-directional printing offset. Table displacement stroke can be adjusted as needed based on ink transfer demand or buildup of residual ink on mesh while printing.
- C. Travel of print head on guided precision sealed linear motion bearings, reinforced tooth belt, timing belt wheel for high rigidity and ultra-smooth high print speed transport cycles without backlash. This ultra-smooth gliding of the squeegee / flood assembly enables step-less speed change for higher production speed, smooth operation, consistent / uniform printing deposit control, less maintenance and fast operation.
- D. Print head high-park capability facilitates faster setup and changeover.
- E. Pneumatic frame locking with check valves / airlock and four-sided frame holding assembly ensures rigidity and high stability.
- F. Patented mechanical print head lift guided on precision sealed linear motion bearings allows stable, vibration-free movement in up/down positions.
- G. Print head printing parameter settings for speed, height up/down position and manual travel for set up independently controlled by single action from the touch screen.
- H. Innovative double squeegee two-way printing (bi-directional) beneficial for two machine processing or single machine to complete double-sided printing, once dried to raise production efficiency. Includes pneumatic squeegee pressure equalizer control system. Automatic and regulated with pivot point balance with snow plow skew for irregular print surfaces.
- I. Stable pneumatic cylinders are encased around solid cast to allow consistent pressurization. After initial setup pressure regulator can be increased and decreased on the fly. For most applications suitable pressure range is 3-4 bars, and pressure indicators gauge incremental setting adjustment.
- J. Touch screen control of innovative double peel-off action to assist with release of ink and mesh from substrate synchronized with the double squeegee two-way printing stroke.
- K. Peel-off height lifting point adjustable by low speed cylinder depending on print stroke and mechanical adjustment to set peel-off height.
- L. Mechanical adjustment of off-contact height settings to accommodate substrate thickness 0 - 25 mm (0 - 1).

Features and Benefits

M. Print table X / Y movements via precision scaled micrometer control(s) for fine registration. Play-free registration without backlash.

N. Choice of three functions: Double squeegee print mode A: screen lowers, table moves X direction and then Y direction, squeegee prints, table goes back to original X and Y position, prints again, and then screen goes up to standby position. Double squeegee print mode B: First cycle screen goes down, table moves in X-direction, prints, table goes back to original position in X direction. Second cycle: Screen goes down again, table moves in both X and Y direction, prints, table goes back to original position in X direction, prints again, screen goes up and table goes back to original position in the Y direction. Standard printing mode: screen will go down, squeegee prints right-to-left, screen goes up, and flood coater moves to the right to left and brings the ink back as the screen goes up. This printing mode is for squeegee and flood coater (instead of double squeegee) as there will be no printing done from left to right.

O. Print head assembly is synchronized and changeover is pneumatically operated for smoother transition. Adjustable height controls, angle settings 0-30°, leveling and skew feature. Provides uniform ink deposits across the entire print area.

P. Highly efficient delta servo motor powers Print head with greater accuracy acceleration and deceleration of speed range. Direct numeric input of digital settings for stroke position through touch screen control.

Q. Variable and independent Print head stroke speed and length setting to image size.

R. Productivity preset in numerical values for throughput can be changed anytime. Enter production quantity according to run length and during run the touch screen will indicate current yield until preset number of prints are achieved.

S. Frame loading and unloading from the front of the machine to facilitate fast setup and changeovers. Frame holding rails can be unlocked from touch screen and easily adjusted to the size of the frame.

T. Control system for compressed air supply is an oil free FRL unit to prevent oil mist pollution, applicable in clean room environment.

U. Emergency press plate positioned in front of print table in case substrate alignment is not in the correct position. Operator can press the plate and printing head slowly lifts up to the full upright home position allowing operator the chance to register correctly final substrate alignment. Reduces spoilage and yields more printed product.

V. Front safety bar location on the print head, compliant with OSHA safety regulations.

Features and Benefits

W. Includes 4 squeegee holders and 4 flood coaters, sq. / fl clamps, pedal switch control, toolbox, tools and door key.

X. Includes squeegee holders, squeegee holder clamps, foot pedal switch control, toolbox, tools, and door key.

Options:

- Table vacuum
- Safety Light-Beam
- Thicker squeegee rubber to enhance effect of Plug-via
- Scratch Residual Ink for automatic cleaning of residue paste/chemical buildup underneath mesh.

- Others available upon request.