



SP-1500



Semi-Automatic Screen Printer From MPM

The SP-1500 was specifically designed in response to trends toward larger hybrid substrates, critical line dimensions in surface mount technology (SMT), and use of polymers on PCBs and flex circuits. The unit provides a high degree of precision for use in both low volume prototype (R & D) and high volume production applications.

The SP-1500 also offers users a choice of workholders. The printer is available with either the standard MPM vacuum workholder for ceramic applications or the innovative High Volume Fan Vacuum hold-down system.

High Degree Of Flexibility

The SP-1500 provides consistent depositions of thick film materials, solder pastes, epoxies, and solder mask. Because of its larger print area capability and choice of workholder, the SP-1500 is an exceptional value for its price.

A Mode Selection Switch lets users choose among automatic print cycles such as: single print with flood return, or flood print; alternate print mode with squeegee hop over; and double print.

The easily accessible, solid state control box also features a digitized squeegee timer, parts counter, and system air pressure gauge. A variable squeegee up delay (up to 2 seconds) allows the screen to peel behind the squeegee. An adjustable carriage return delay helps users obtain the most precise printed images, based on the specific characteristics of the materials being used.

Fast, Easy Setup, Cleanup

The SP-1500 offers two unique MPM features which facilitate fast, easy setup. The Mylar Alignment Fixture reduces the initial setup procedure to a single print cycle. Because test printing is done on reusable mylar, paste and substrate are conserved. Only one setup per print pattern is required.

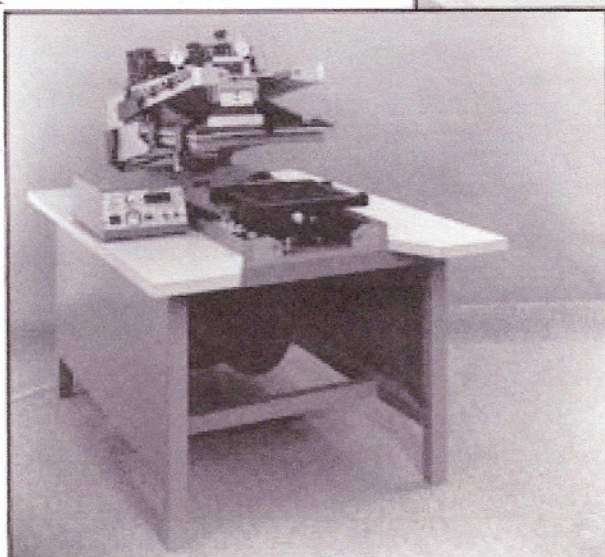
The MPM 3-point screen frame registration system permits removal for cleaning and reinstallation without pattern realignment. In addition, independent dial adjustments for screen height (snap off) and squeegee down stop contribute to faster, easier setup.

A pneumatically raised print head with screen tilt away provides full access to the screen and squeegee assembly for faster cleanup. The use of a single squeegee, rather than the typical double squeegee, not only allows for longer squeegee stroke, but also aids in faster cleanup.

Quality And Precision

The SP-1500 supplies the highest standards in image precision and consistency. It offers repeatable registration to 0.0005". The high volume fan vacuum system with two tooling pins holds even warped or perforated PC boards securely in position during the print cycle.

The printer is constructed of the highest grade materials for years of service with minimum maintenance. It is backed by knowledgeable service and support personnel which assure years of quality results.



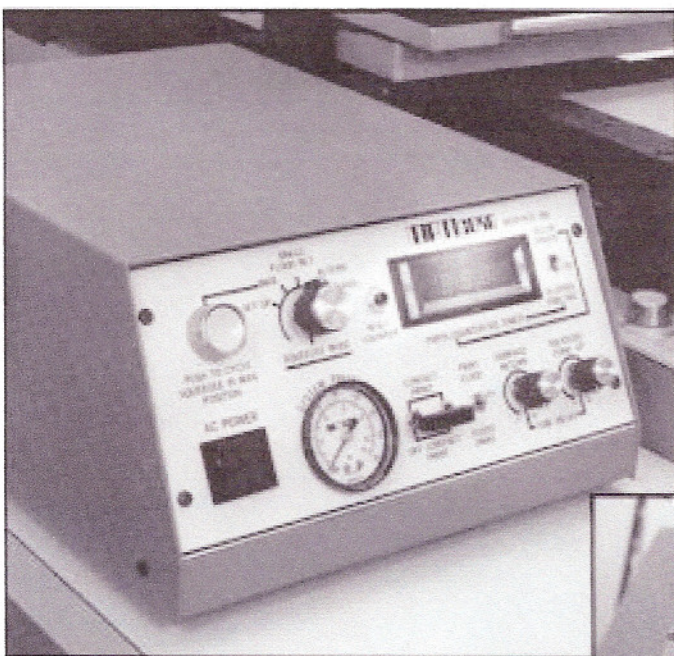
Standard Features

- Precision print head-to-carriage alignment using unique one-print mylar adjustment system, with X, Y, and theta micrometer adjustments.
- Consistent print uniformity
- All adjustments have independent locks and stay in setup
- User selectable print-cycles: single print mode with flood print/print flood; alternate; and double print modes
- Contact/Off-contact printing capability
- Hydraulic squeegee drive (air-over-oil) with infinitely adjustable speed and stroke
- Squeegee pressure adjusted by calibrated coil springs
- Adjustable squeegee down stop and angle of attack
- Choice of fixed or floating squeegee assembly
- Choice of High Volume Fan Vacuum system, standard MPM vacuum workholder, or combination of both.

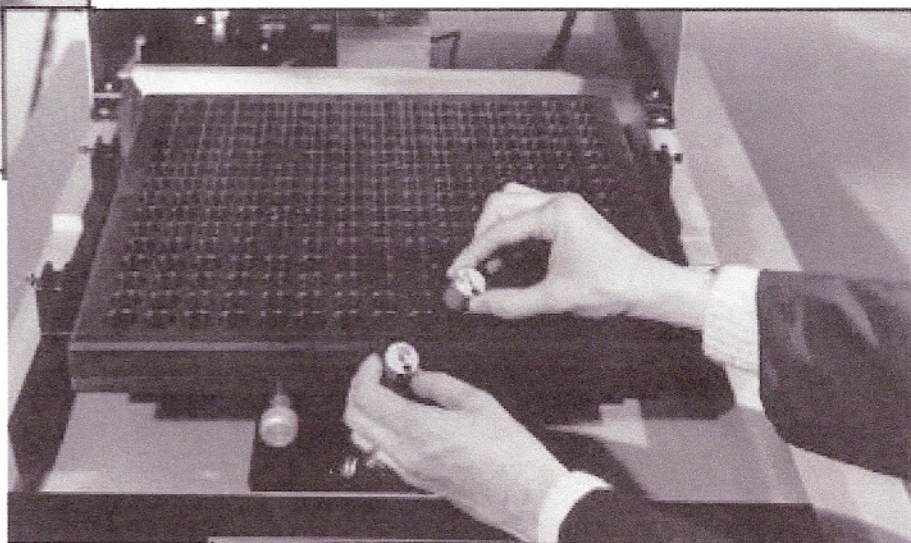
System Specifications

- Print Area:** up to 11" x 11"
- Frame Size:** up to 15" x 15", and/or 12" x 17" inside dimension
- Substrate Carriage:** Registration Repeatability— $\pm 0.0005"$
Substrate Size—up to 12" x 12"
X-Y Adjustment— $\pm 0.500"$ range (micrometer)
Rotary Adjustment— $\pm 10^\circ$ (micrometer)
- Squeegee Head:** Print Stroke Adjustment—1" to 14"
Speed: 0 to 15" per second
Screen Height Adjustment—1" range (dial indicator)
Pressure—2-60 lbs. by calibrated coil springs
Angle of Attack Adjustment— $\pm 5^\circ$
Squeegee Holder—12" maximum (specify) with 0.375" square blade
Flood Blade—Independent level and height adjustments
- Service:** Power—115V, 60Hz (220V, 50 Hz, specify), 1 amp
Air—80-125 psig at 6 cfm
Fan Vacuum—115V, 60Hz, 10 amps (220V, 50 Hz, 5 amp)
- Dimensions:** Printer—Length = 53"; Width = 21"; Height = 21"
Formica Covered Table—Length = 58"; Width = 41"
Steel Stand—Height = 28"
Shipping Weight—500 lbs.
- Warranty:** One year for materials and workmanship

Represented by:



The easily accessible, solid state control box features a Mode Selection switch, digitized squeegee timer, parts counter and system air pressure gauge. The high volume fan vacuum system with two moveable tooling pins secures PC boards in position during the print cycle.



MPM
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Technology for Perfect Printing.

