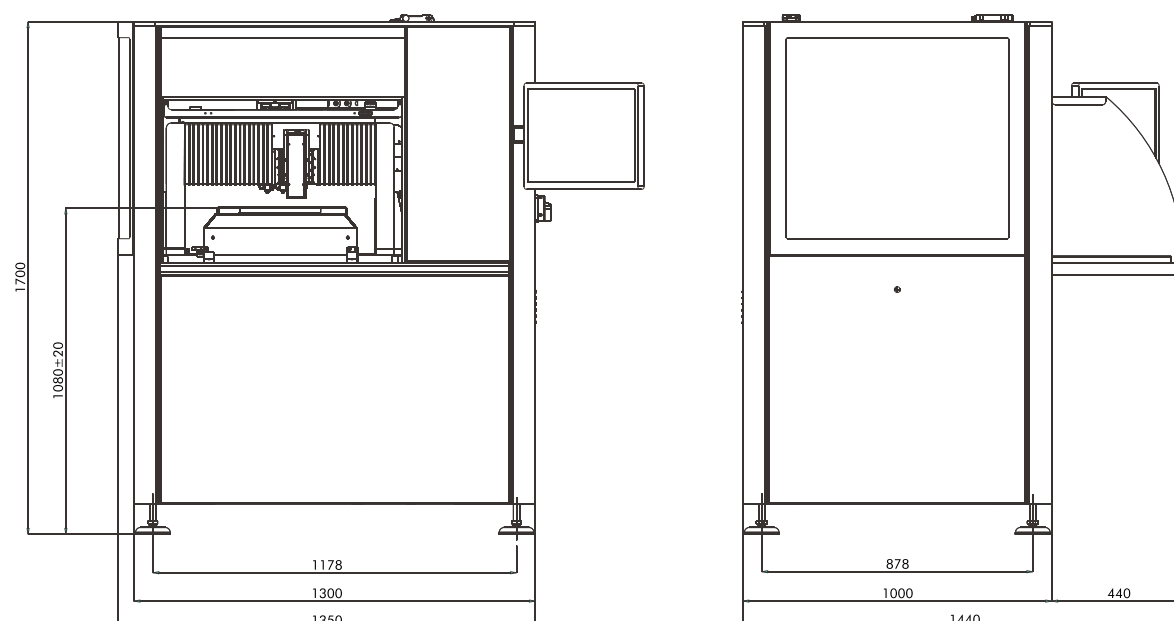


MOD. VS1520A FINE-LINE SCREEN PRINTER

SPECIFICATIONS VS1520A	HIC	SMT
Max print area	250 x 250 mm	400 x 300 mm
Max substrate size	350 x 300 mm	450 x 350 mm
Screen size	12" x 12", 12" x 16", 15" x 20"	max type 11 or 14
Table X axis resolution	0.001 mm	
Table Y axis resolution	0.0001 mm	
Table theta axis resolution	0.001°	
TV camera axis resolution (X1 axis)	0.0001 mm	
Vision system repeatability	± 0.001 mm	
Total system repeatability	± 0.012 mm	
Squeegee and screen parallel	± 0.01 mm/100 mm	
X-Y adjustment	± 12 mm	
Z adjustment (screen height)	± 10 mm	
Theta adjustment (rotation)	± 3°	
Print stroke	50 ÷ 480 mm	
Squeegee speed	0 ÷ 300 mm/sec	
Squeegee pressure	0 ÷ 16 Kg	
Dimensions	1440W x 1350L x1700H mm	
Approx. weight	700 Kg	
Compressed air supply	5 Ate - 50 NI/min MIN	
Power supply	230V - 50Hz - 10A	



Specification are subject to change without prior notice.

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The series VS screen-stencil printer uses highly advanced mechanical and electronic solutions to guarantee superior quality in fine-line printing of Thick Film, Solar Cell, LTCC, PWB, Wafers, Glass, Metal and many other applications.

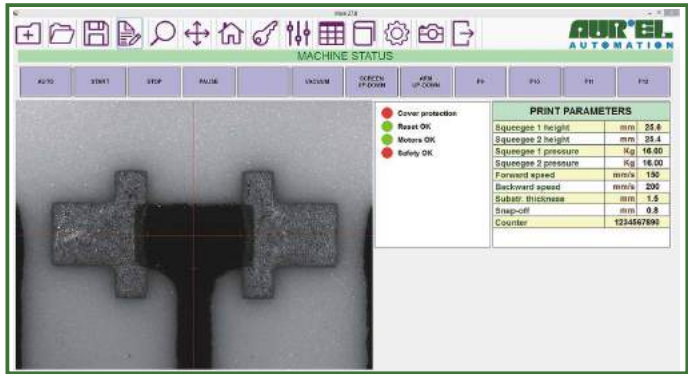
The Automatic Vision System ensures resolutions better than 2 microns. All the machine's movements are motorized and programmed by an user friendly menu.

HEAD

- The new very intelligent head on high precision slides represents the latest state-of-the-art design with motorized and programmable axes for fine teaching and adjustment of parameters.
- High sensitive squeegee for fine-line printing, low pressure, constant angle, no vibrations.
- DC motor driven head allows smooth movement and precise speed & stroke adjustments in both directions.
- Configurable head, single squeegee, double squeegee, squeegee and flood blade.
- Motorized and programmable screen Z axis for screen height and slow print gap function - very important for fine line printing.

CONTROLS

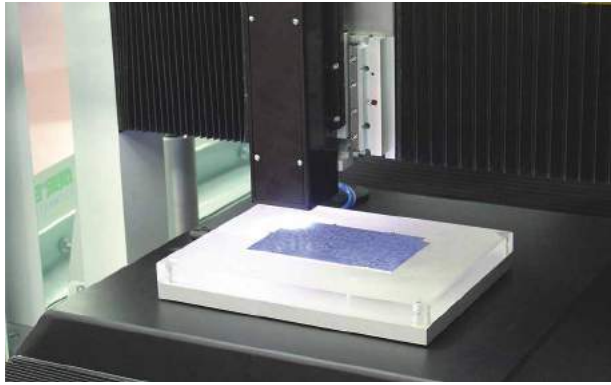
- The machine is PC controlled and allows a great deal of flexibility on all functions.
- Touch screen monitor with user friendly interface.
- Print and flood, alternating print and after print delay.
- Programmable printing speed, printing pressure & downstop, screen snap-off.
- Machine diagnostic.
- Machine hood & lifting and locking safety switches. Setting up, and all parameters controls & storage.



**USER-FRIENDLY INTERFACE
WITH TOUCH SCREEN MONITOR**

WORK TABLE

- High precision fast linear motors. Alignment on the X-Y and Theta axes with 1 micron resolution for a perfect alignment between screen and substrate.
- Substrate hold down by vacuum, pump included. Vacuum detector for substrate presence and chamber sensor.
- Are available special fixture and chuck as porous plates for green tape, wafers, ceramics or universal table for PWBs.



AUTOMATIC VISION SYSTEM

VISION

The Vision camera is mounted on a X axis with linear motor. The movement on this axis and the movement of the table in the Y-axis cover the complete substrate area. This allows to look at the fiducial marks, the vias or a pad wherever they are placed on the substrate.

A special optic and IR lighting system is integrated in the TV-camera assembly. Room lighting or PCB colours no longer influence the reliability of the vision system.

The vision system is PC based with a very advanced software for easy teaching and automatic adjustment of all parameters and values.

ACCURACY & VISION SPECIFICATIONS

Table X axis resol.	0.001 mm
Table Y axis resol.	0.0001 mm
Theta axis resol.	0.001°
TV cam. axis resol.	0.0001 mm
Vision system repeat.	± 0.001 mm
Total system repeat.	± 0.012 mm
TV cam. view. area	min. 2x1.5 - max. 8x6 mm
Fiducial dimens.	min. 0.2x0.2 - max. 3x3 mm

CLIMATIZATION SYSTEM

The machine can be equipped with the automatic control of temperature and humidity. This can be very important for increased mechanical accuracy and to keep the pastes at the temperature level required for superior results.

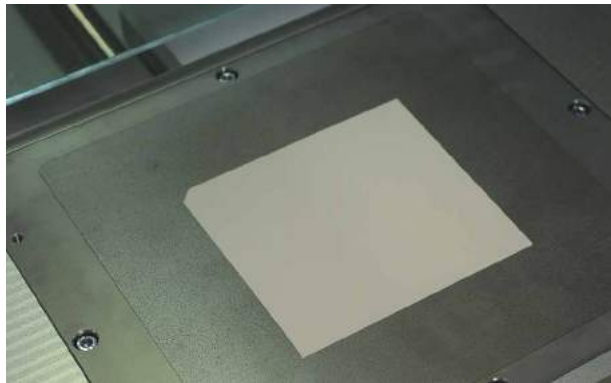
AUTOMATIC STENCIL CLEANING FOR SMT

A special cleaning system composed by a cleaning roller and a vacuum bar provides the solution for the stencil cleaning.

The system is programmable as stroke, frequency, and vacuum on/off.

OTHER OPTIONS

- PHM, Programmable Holes Metallization and VIA filling
- Substrate cleaning via roller, vacuum or ion bar
- Bar code reader
- Automatic screen alignment and locking
- PPI, Post Print Inspection
- Automatic handling systems
- Special handling for Green Tape (LTCC-HTCC) and other flexible substrates.



**POROUS TABLE
FOR FLEXIBLE SUBSTRATES**