AUTOMATION DIVISION

VS1520M

FULL AUTOMATIC SCREEN PRINTING LINE

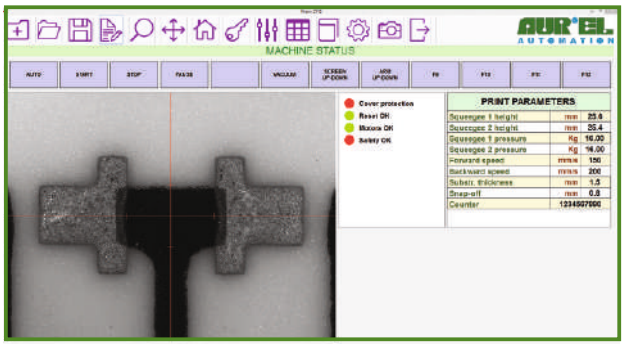
Aurel VS1520M is the full automatic screen printing version conceived with a modular approach that permits the customer to build up the line adding step-by-step additional modules according to the real production trend.

The basic configuration consists of a from cassette-to-cassette line with a high accuracy in-line screen printer platform VS with automatic vision system to grant the highest repeatability for multilayer circuits and throughput (up to 6 sec + print time)

APPLICATIONS

Some applications for electronic and general industrial purposes are:

- Ceramic substrates
- Roll-To-Roll line
- Foil-To-Foil line
- SOFCs
- Parts on carriers



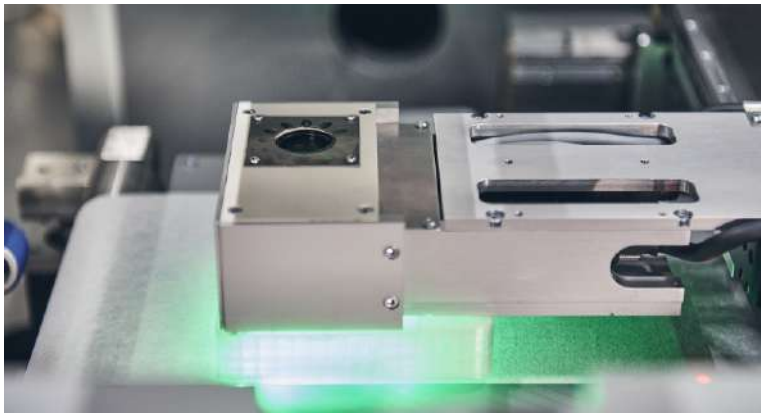
USER-FRIENDLY INTERFACE
WITH TOUCH SCREEN MONITOR

CONTROL SYSTEMS

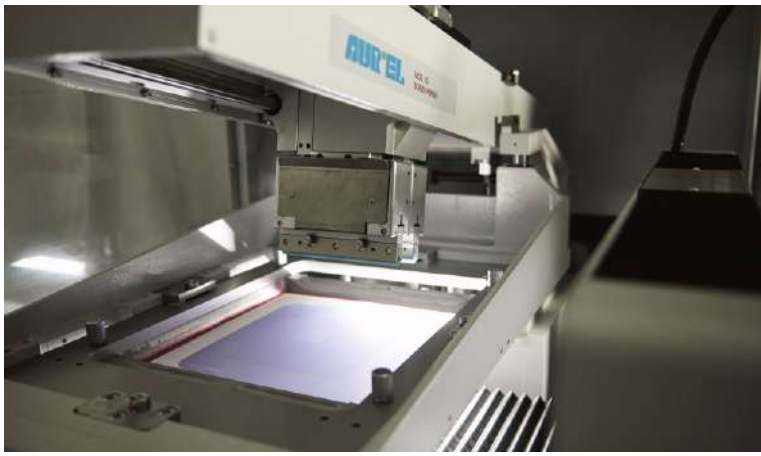
- The machine is PC controlled and allows a great deal of flexibility on all functions;
- Windows © Operating System;
- Wide Touch screen monitor with user friendly interface;
- Print and flood, alternating print and after print delay;
- Programmable print parameters (printing stroke, pressure, print gap & down stop).
- Machine diagnostic;
- Machine hood & lifting and locking safety switches;
- Work recipes storing and data logging.

VISION

Vision system by double digital TV camera for top & bottom vision movable over the complete substrate area for perfect fine-line alignment.



AUTOMATIC VISION SYSTEM (TOP & BOTTOM CAMERA)



INTELLIGENT DOUBLE SQUEEGEE HEAD

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.

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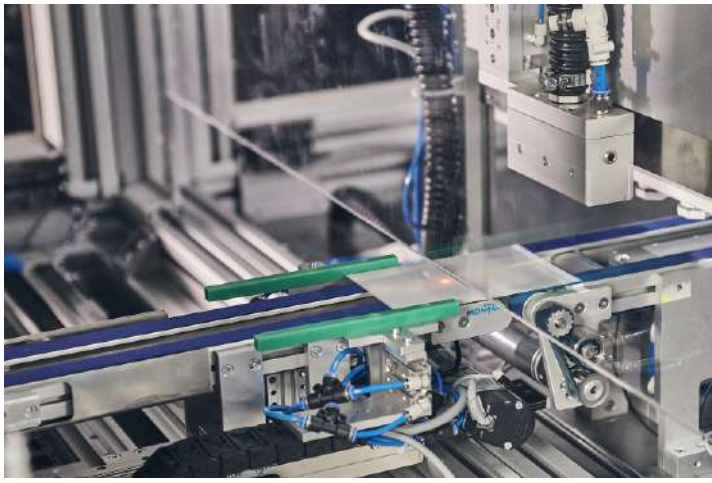
OTHER OPTIONS

- Paste Reload Dispenser
- PHM, Programmable Holes Metallization and VIA filling
- Substrate cleaning via roller contact, air knife, ionizer bar
- Bar code reader
- Pneumatic screen locking
- PPI, Post Print Inspection
- Climatization system
- Automatic stencil cleaning (only for stencil)
- Weighing Station (before & after Printing)
- Robust In-line transport with motorized width adjustmentfrom 2″x2″ up to 5″x5″ ceramic substrates

AUTOMATIC PASTE DISPENSING SYSTEM

WEIGHING STATION



ROBUST IN-LINE TRANSPORT

CLEANING STATION WITH AIR KNIFE & IONIZER BAR

CLEANING STATION WITH TEKNEK ROLLER

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CASSETTE MAGAZINE
FOR CERAMIC SUBSTRATES

LOADER/UNLOADER

- Aurel AH150C handler from cassette-to-cassette operation, with automatic shuttle and separated chambers to change an empty magazine without stopping the cycle.
- Aurel AH150S handler from stack-to-stack operation with vacuum section cups.
- Loader with Double system: AH150C and AH150S only for the first print of blank ceramic substrates

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SPECIFICATIONS VS1520MM

FEATURES

Max print area	150 x 150 mm (larger on request)
Max substrate size	150 x 150 mm (6" x 6"); (larger on request)
Max Screen size	15" x 20" (option 21" x 21")
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 (more on request)
Printing capacity	6 ÷10 sec + print time
Conveyor direction	Left to right (optional right to left)

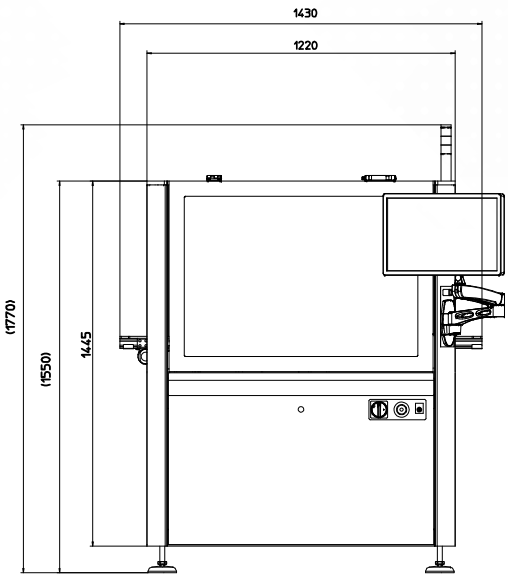
ACCURACY

Table X axis resolution	0.001 mm
Table Y axis resolution	0.0001 mm
Table theta axis resolution	0.001°
TV camera axis resolution	0.0001 mm
Vision system repeatability	± 0.001 mm
Total system repeatability	± 0.012 mm
Squeegee and screen parallel	± 0.01 mm/100 mm

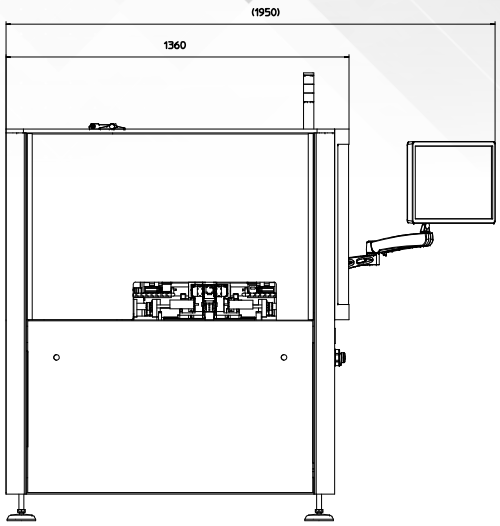
DIMENSION & UTILITIES

Dimensions	1430W x 1360L x 1550H mm (only in-line screen printer)
Approx. weight	700 Kg
Compressed air supply	5 Ate - 50 Nl/min MIN
Power supply	230V - 50Hz - 10A

FRONT VIEW



SIDE VIEW



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