



## SMT/PCBA Equipment and Processes

**Lasers &  
Inkjet Markers**



**Conformal Coating  
& Dispensing Systems**



**Range Of  
Depaneling Routers**



# RANGE OF DEPANELING ROUTERS

## R2500

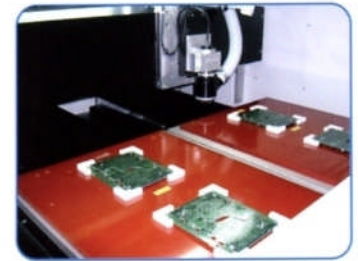


**AVI** Depaneling Routers come with German made air cool precision spindles of up to 60,000 rpm! Come with 2x worktables with option to merge into 1 x big table to handle much bigger size boards. Model R2500 handles board sizes up to Lg 330 x 250 mm per work table while Model R2200 handles board sizes up to Lg 500 mm x W400mm

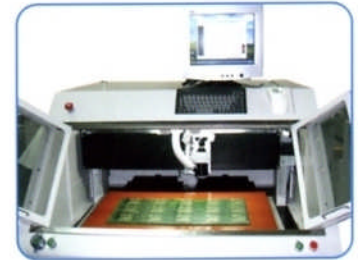
## R2200



Runs on Windows XP and with **AVI** user friendly software, the system is easy to use! With features like tool bit optimisation, real time vacuum bag full and with options like broken tool bit detection, fiducial board referencing and even a build in vacuum cleaner, it is no wonder why **AVI** router outperforms its competitors.



Two Work Tables



or into One Big Table

R2200 handles board size up to Lg 510 x W330mm & R220 up to Lg. 810 x W500mm

Machine Specifications		
Model	R2500	R2200
Foot Print (Lg x W x Ht.)mm	1100 x 1100 x 1500	1200 x 1200 x 1400
Table size/Programmable Area	Lg 300mm x W 250mm	Lg 400mm x W 500mm
Programmable axis	Three	Four
Number of Work Tables	Two	
Position Motor Drives	Close Loop with feed back system	
Positional Accuracy	+/- 0.02mm	
Positional Resolution	0.002mm	
Positional Feeds	up to 420mm/sec	
Type of Feeds	Straight lines, arc, and circles.	
Controls	Windows XP with PTS operating software. Real time process monitoring.	
Programing Capabilities	Teach in- using keypad Same or different models on each table.	
Spindle rotation speed	Variable up to 60,000 rpm. Programmable via computer.	
Type of Spindle	Air cool, Spindle runout 0.002mm, 1/8" collet - German make.	
Camera./Laser Pointer	High resolution pixel camera with laser pointer to indicate route area.	
Vacuum and filter System	Integrated into system real time feed back/display for vacuum bag full.	
Facilities/Power consumption	220VAC 1 phase/2.2 KW; Compress air min. 6 bars.	
Options:	Fudicial Board Recognition Referencing	
	Build in vacuum cleaner for maintenance.	
	Alarm for router bit change. Tool bit optimisation	
	Gerber File Downloading/Programming	
	Broken router bit detection	

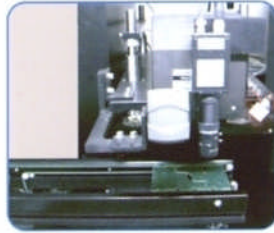
## IN-LINE LASER MARKING SYSTEM



LS2000

Uses the most advance laser, optics and servo control galvo heads for marking PCB. Marks serialised nos:, date codes, 2D Matrix , bar-codes, alpha numerics and logos.

Comes standard with a 10 watt CO2 Laser and a conveyor with programmable X-Y table, it allows for precision multiple laser firing positions over a wide area of the PCB . It comes with a camera (option) for fiducial board recognition referencing. Scanner verifier ensures readability of the mark codes. Comes with SNEMA interfacing capability and fully covered interlock panels/doors for safety.



**Choice of YAG Laser available**

## IN-LINE INK-JET MARKER

**AVI** uses US made Ink Jet Technologies for its range of In-Line Markers. Ergonomically designed with standard SNEMA interfacing capability, the system marks characters as small as 1mm. It marks, alpha numerics, graphics, different fonts, serialised nos:, barcodes and 2D matrix. The marking head is mounted onto precision servo driven slides and is programmable to cover the entire PCB. Mark along straight lines or at angles.

**AVI** makes marking a breeze!

**Improves process flow, saves labour and expensive high temperature labels. No more QC rejects/arguments over smudgy illegible markings!**



MK1200

## IN-LINE LABELING SYSTEM



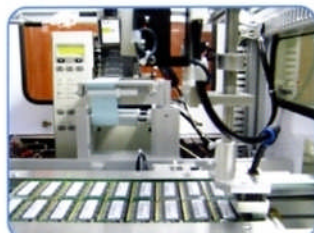
LB2000

Using a Zebra 600 dpi printer, it prints, barcodes, 2D matrix , logos, alpha numerics, running serial numbers and many more...

With 4 programmable axis, this machine can place labels on uneven height level and at any placement angles. A bar code scanner reads and confirms its readability.

Runs on Windows XP and with **AVI** user friendly operating software and ergonomic design, this beauty this going to revolutionise the way labeling is done.

**Saves labour and eliminate end of line QC rejects for slanted labels!**



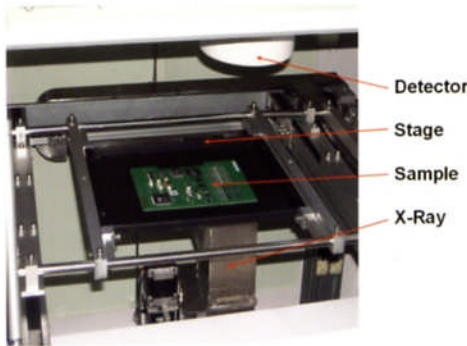
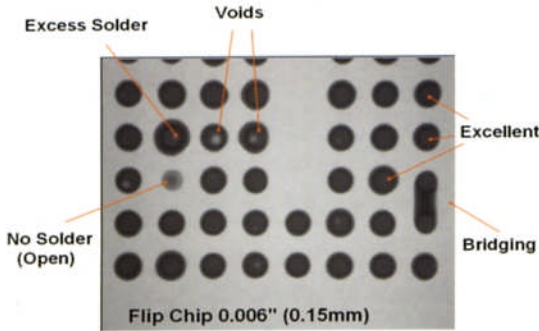
Picture shows auto labeling on Dimm

# X-RAY INSPECTION SYSTEM

Powerful Performance at Competitive Pricing! Complies with all US and International Safety Standards. Meets or exceed CDRH directives

Powerful software for 3D simulations, void percentage calculations and defect analysis.

Motorized XY board positioning. Large inspection area with 3D actuator. With X-ray energy at 100KV and focal spot size at 5 micron (typ) it gives you the added capability to inspect flip chip packages.



Larger rotating table for 3D view

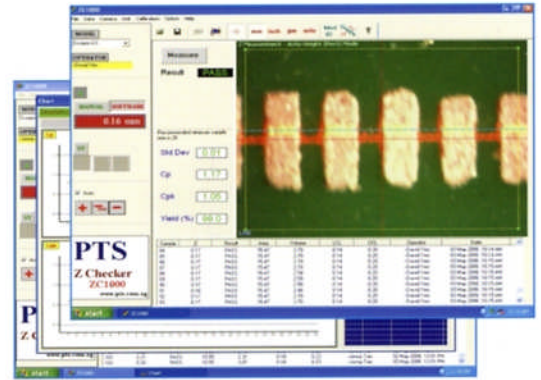
Machine Specification Model: View X L-100	
Machine External Dim.	Lg 1200 x W1000mm x Ht 1300 mm
X-Ray Energy	100 KV
Power	10 watts
Focal Spot Size	5 microns typ.
X-Ray Tube Style	Sealed tube
Image Detector	4/2" Dual field Image Intensifier
Camera	CCD with Zoom Lens.
Image Processor	View X1000 High end image processing workstation
Field of View	Variable up to 2"
Max. Inspection Area	480mm x 500mm.
Magnifications	125x Geometric, up to 600x optical zoom
X-Y position	Motorized via joy stick with fast/slow controls. with LED pointer to indicate x-rayed position.
Options	3D tilt platform for 3D view
Facilities.	220VAC or 110VAC single phase - to specify on order.



**UV Oven 1000**  
Comes in mesh or twin chain conveyor with SNEMA. Variable belt speed control.  
  
600W or 400W at freq.320-390nm. Meter tracks lamp age. Build in baffle fan ventilation. Power saving in standby mode. Well covered to prevent stray UV lights from escaping.

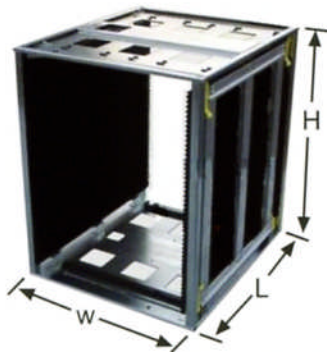


# SOLDER PASTE HEIGHT CHECKER



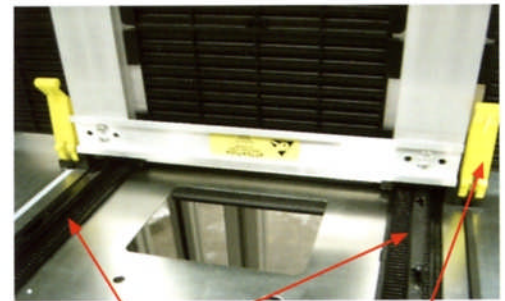
Check solder paste height , volume automatically. Real time display of Std. Deviation, CP, CPK and Yield. Precise and repeatable up to +/-0.01mm. Plots X-bar, Range, CP and CPK charts.

Machine Specifications Model: ZC1000			
Stage dimensions	500mm x 500mm.	Charts	X bar; Range, CP & CPK
Inspection throat depth	250mm	Real Time Feedback	Std. Deviation; CP; CPK
Working Distance	40mm to 70mm		Yield, Pass, Fail, Area,
Inspection Capabilities	Linear, Angle & Height circle, area.		volume, date, time
Inspection mode	Auto or Manual	Data Transfer	Notepad; Excel
Units of measurement	mm, inch, micron, mils.	Data Change	Password Protected
Accuracy/Repeatability	+/-0.01 mm	Inspection Area	Definable
Laser Class	IIIA	Operating Software	Windows XP
Dimmer	Laser and Led Light	Calibration Kit	1 mm Certified slip gage
Camera View	5.8 x 4 mm	Verification Kit	0.1, 0.2 & 0.3mm gages
Image Resolution	0.0038mm	Power (Kva)	220Vac or 110Vac
		Option:	x - y table



## MAGAZINE RACK

Sturdy in design with top and bottom metal plates support. Gear track allows for easy width adjust while maintaining consistent width through out. No tools required. Just release lock lever, adjust and lock. Heat resistance type available for PCB/PCBA baking up to 200 deg C.



Gear Track Lock Lever

Machine Specifications Model: ZC1000				
Sizes	M	L	LL	LLL
Overall Size (L x W x H) mm	355 x 320 x 563	460 x 400 x 563	535 x 460 x 570	535 x 530 x 570
PCB Size Max. Lg (mm)	350	460	535	535
PCB Size Width Adjustable	min 50 - max 250	min 60 - max 330	min 60 - max 390	min 120 - max 460
Surface Resistance	10 <sup>4</sup> ~ 10 <sup>6</sup> Ohms			
Colour	Black			
Slot Guide Slot	Depth 3.5 mm . Width 5 mm.			
Pitch (Slot)	10 mm			
No. of Pcs of PCB	50			
Heat Resistance (Std)	80 deg C			
<b>Option:</b>				
Heat Resistance type	120 deg C or 200 deg C			
	Different Colours			

We integrate Lasers into systems to meet your process requirements.



Range of DPSS Yag Laser



Range of CO2 Laser



Laser Engraver LE60 - 60 Watt  
Marking field 500 X 700mm



Marks and cuts  
on acrylic, glass,  
leather, wood,  
bamboo and cloth

Laser Engraver LE20 - 40 Watt  
Marking field 280 X 400mm



Standalone work state with diode pump laser.

Integrated with programmable  
x-y table.



Come with scanner verifier  
and NG stocker.



## CONFORMAL SPRAY COATING

**AVI** selective conformal coating systems come with USA made dispensing and spray valves technologies to meet Customer requirements.

Using **AVI** Evencoat Windows XP software the system delivers a clean, cost effective, consistent and environmental friendly process. It replaces the traditional dip, brush or aerosol spray processes.

The system comes standard with a spray nozzle with solvent and purge cups. Programmable x-y-z axis with 90 deg rotation axis allows for selective coating. Additional dispensing head comes as options. When linked with **AVI** Board Loader and Unloader and/or Board Flipper, it provides a complete conformal coating work cell.

**Eliminate Health Hazards, Be Environmental Friendly, Improve Productivity and Save Cost!**



CSC100

## IN-LINE PRECISION FLUID DISPENSING



ED2000

**AVI** precision fluid dispensing systems come with different USA made dispensing valves and technologies to meet Customer requirements. From time/pressure dispensing to Auger drive pumps or positive dispensing diaphragm pumps, **PTS** integrates them with build-in camera for ease in programming and fiducial recognition for board referencing, nozzle tip calibration, gerber file downloads and programmable x-y-z axis.



**Your alternate choice to expensive US made system without sacrificing performance!**

## BENCH TOP PRECISION FLUID DISPENSING

Select your choice to meet your requirements! Time/pressure dispensing with one Auger (screw pump) or two Augers or one with a Diaphragm pump. It can perform dotting, circle and seam dispensing.

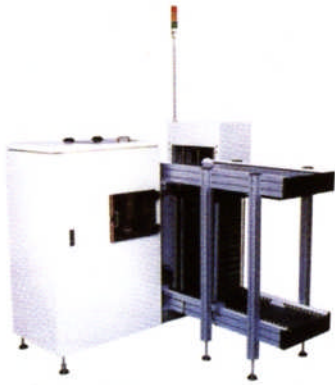
Programmable via pendant or using Windows XP, the system is robust and highly precision with a repeatability of +/- 0.02mm

**Suitable for dam & fill, sealing, potting, encapsulation & dotting solder paste for BGA or CSP rework**



ED3002

# BOARD HANDLERS



Magazine cum BareBoard Loader (2 in 1)  
MBL2008



Magazine Loader LM1200  
Magazine Unloader ULM1200



Magazine Buffer Stocker  
BS461



L-Shape Mag. Unloader  
ULM1100



Bare Board Loader  
BBL2000



Telescopic Conveyor  
BC2000



Multi Purpose Buffer Stocker  
BS2000



Turntable  
TT1100

**New!**



PCB Brushing  
BM1000



Chain Buffer Stocker  
CBS 1000



Board Inverter  
BF1000



Workstation



Range of Conveyors



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