

# MS9100 Rework Station for large Board



MS9100 can be rework maximum 520 x 610mm board, it will be possible also at the board whose thickness is even 5mm in 24 layers.

- | For large size board(max 520 x 610 mm)
- | Board thickness 5.0 mm or more
- | built-in 5CH thermo profile checker
- | 8KVA wide bottom heater system

## Operation

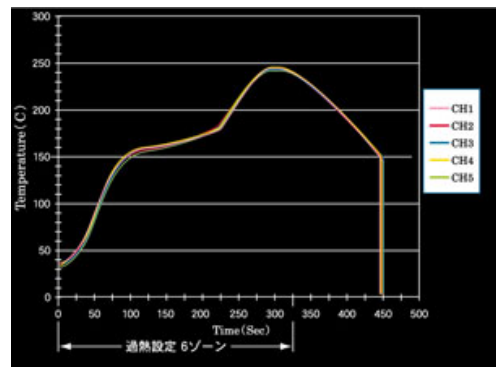
MS9100 has the controller of 6 heating zone and 1 cooling zone. Then, even a lead free temperature profile is reproduced correctly.

In MS9100, there are the screen for administrators and the screen for workers. For safety, the screen for administrator is managed with the password. And only operation keys are shown in the operator's screen. By those keys, can not never change and input, of the data. the input of data is touch system on the screen.

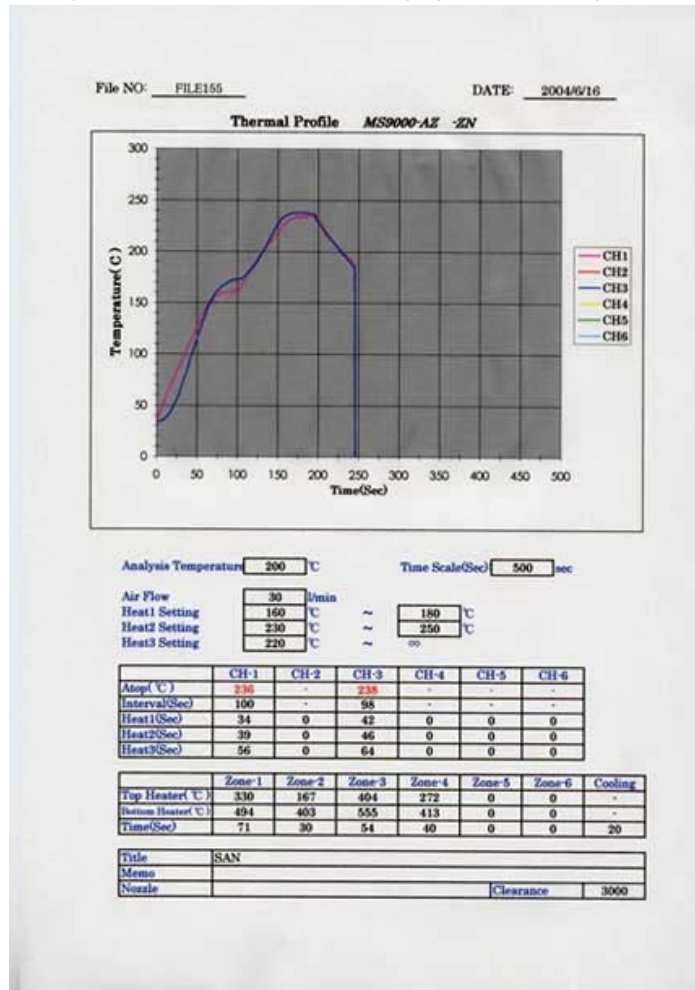
Furthermore, the machine has many interlock screens, The picture is some example screen. They will be also protect an operator's safety.



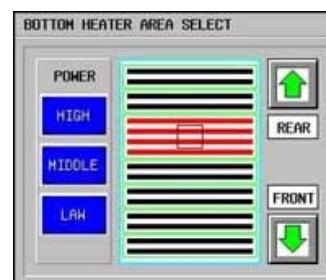
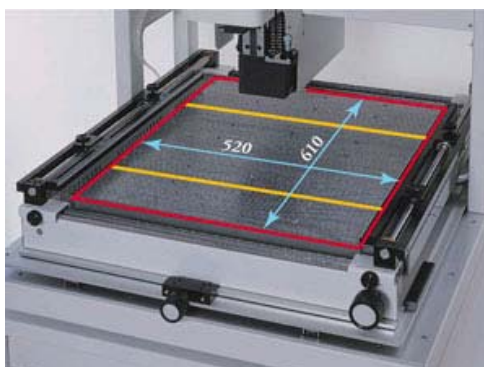
The interlock message is has 30 types, They display the type of the trouble.



MS9100 can be measuring of 5 CH temperature profile. then the data is savable up to 100 files into the memory card. Furthermore, the data can be analysis as a peak temperature to each channels. and the time interval for each channels. The setting temperature if a time interval can be set up before measuring. The data can be printed out on the A4 size paper. the sample is as follows:



## The powerful heating system



The Controller for Bottom heater, It can be select in only a required zone. It is for safety and efficiently heating.

The Y axis is by the table adjuster and the X axis is by top heater head moving. The reworking is possible on the board at all, by combination moving of X and Y.

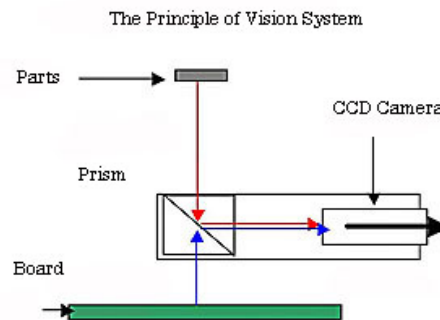
The bottom heater is IR system and the top heater is by hot air system. The temperature profile for lead free can be created by the combination of those high response heater system. And wide bottom heater can be best

condition heating to the board with minimum warping by heating. Even the board of 5mm thickness and 24 layers can be reworking with good condition.



Board Test sample

## Positioning system



The positioning of the SMD as BGA is by optical high precision system. It is the system which image monitor on the screen, and the image is compounds of the parts and the board by the prism. The splitter system is used when the large size parts as 27mm or more. It is positioning by the expands diagonal image. The direct image system used when the parts is small size less than 27mm,

### Positioning Screen by the Direct Image:

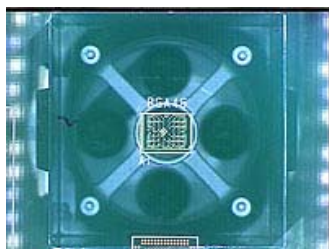


Fig 1

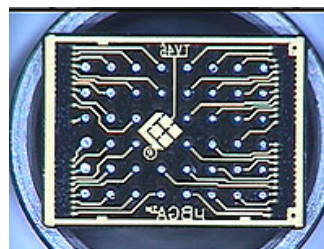


Fig 2

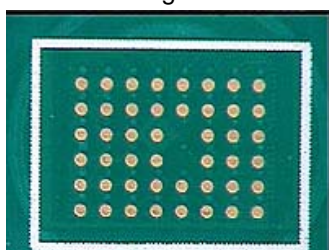


Fig 3

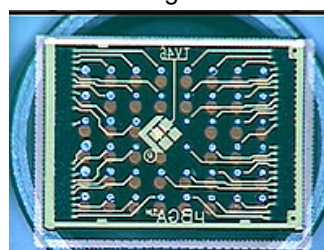


Fig 4

Fig-1:5x8CSP (5.0x8.0mm size)

Fig-2:Expansion of the CSP

Fig-3:The board image

Fig-4:CSP and Board image was overlaps on the screen.

Positioning Screen by the splitter Image:

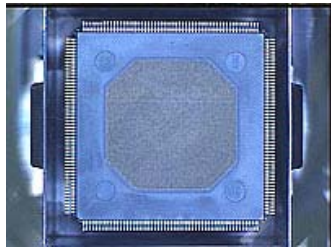


Fig 5

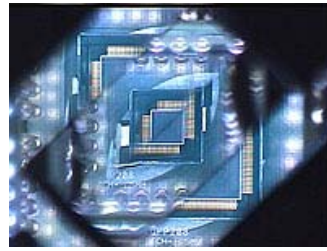


Fig 6

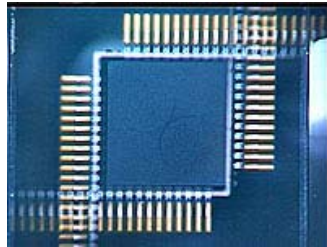


Fig 7

The splitter function is effective to the image of 27.0x27.0mm or more large size package.

Fig-5:35.0x35.0mm QFP

Fig-6:The image was cut off of the diagonal

Fig-7:The diagonal image is expanded on the screen. Positioning can be correctly by the expanded image.

## Accessories

1. Power Cable (3 cores) x 1 (approx. 5M)
2. Air Tube x 1 (6mmD approx. 3M)
3. Under board support pins system x 1
4. Monitor power cable:Special cable x 1
5. S-terminal cable: Special cable x 1

## Optional Parts

Nozzle: It selects according to the size of the package which rework.

Sensor Kit : This is CA sensor for surface temperature of the package and also the board.

Cleaning unit : It is the cleaner for the board which after reworking.

Solder Printing Jig : The printing jig for the BGA.

Test Board Kit :It is for Vision system calibration.

Inspection system : X ray inspection system for after reworking.

## Specifications

Item	Specification
Board Size	50x50---520x610mm
Thickness	0.5--5.0mm
Weight	5Kg max.
Top Space	up to 45mm
Bottom Space	up to 25mm
Y Axis Fine Adjust	+&- 7.0mm
X Axis Fine Adjust	Possible throughout the X axis
Board Holder	L type Rail & Nail type Jig
Board Support	Under Support by 9 pins with 3 rail
Z axis	by motor control
Accuracy	+&-:0.025mm
Angle Adjust	+&- 5.0
Vision System	2.0x2.0---50x50mm (Respond size)
Magnifying	0--75x zooming
Focus	Auto/Manual
Monitor	14 LCD
Splitter	Direct/Splitter selectable
Top Heater	Hot Air 260x4=1040VA
Bottom Heater	IR 8000VA (500x550mm )
Controller	Color Touch Panel
Control System	PID
Control Zone	6+1 zone
Temp. Setting	Top 000---450 C degrees
	Bottom 000---600 C degrees
Time	000----999 sec. Heating
	000----999 sec. Cooling
Temp. Measuring	5 CH CA-K
Data File	100 file max. by the card type memory
Data Analyzer	Peak Temp & Time interval for each CH.
Power	220--240V AC 10KVA 3P
Air	0.5Mpa (N2 possible)
Dimension	750Wx950Dx1750Hmm
Weight	150Kg approx.

The specification are subject to change without notice.