

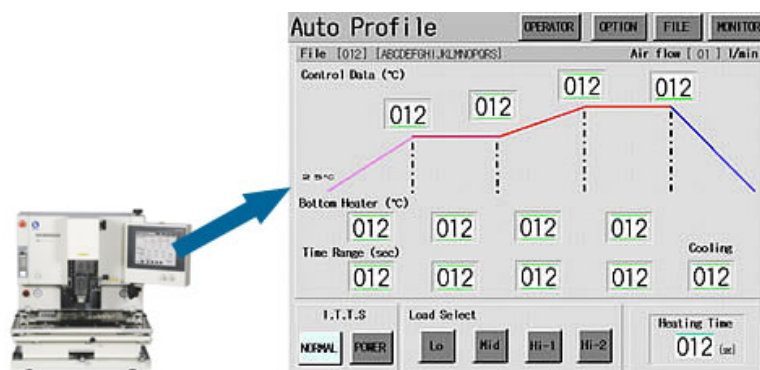
MS9000SAN Rework Station



MS9000SAN is the all-round rework system which almost all SMD can be reworked. And the original ITTS auto profiler system is operates of the system easily and exactly. Many kinds, such as a connector, and a socket, a shield cover, of SMD can be reworked as well as BGA and CSP, and also QFP of a fine pitch.

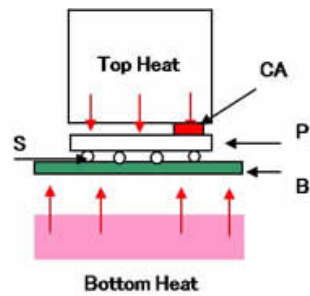
- | Automatic Thermal Profile System
- | ITTS(Intelligence Thermal Trace System)
- | High performance combination heating system
- | Powerful 6 zones heating system
- | Standard split screen zoom for easy alignment of large components
- | User Friendly touch screen operation System
- | For global use, it can change to four languages. (English/Japanese/China/Korea)
- | Built-in 3+1 CH Temperature profile monitor
- | Optimal for Lead Free Solder

Automatic Thermal Profile System



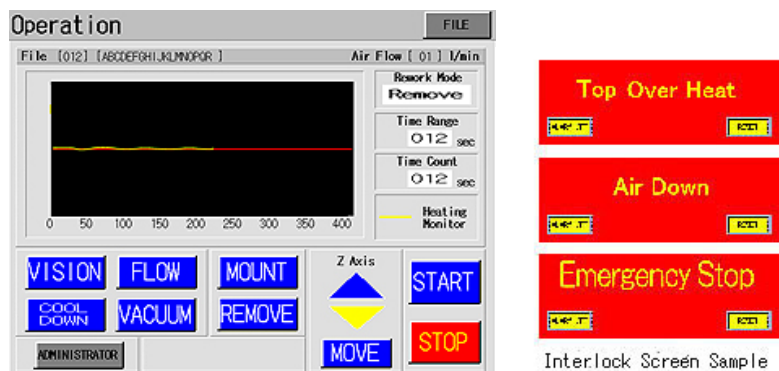
ITTS(Intelligent Thermal-Trace System) is provide of the optimal temperature profile operation, if the temperature data of the profile which you expect is inputted.

The ten key for data input screen is bringing up, if the window to input is touched. And ITTS will be provided automatically of the optimal temperature profile operation.



ITTS automatic operation is controlled by the sensor at "CA". The automatic control of the ITTS is operated that the temperature of "CA" may become the same as the temperature of the solder ball "S". More details can be checked in the technical report "Rewrk Solution Technical Report" and "The Best Heating System for Reworking".

Operation System



In MS9000SAN, 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. Furthermore, the machine has many interlock screens, The picture is some example screen. They will be also protect an operator's safety.

Multiple-Language System(English/Japanese/China/Korea)



The screen display can be choose by the basic setup of the system. All screens are displayed in the selected language.

Built-in 3+1 CH Temperature profile monitor

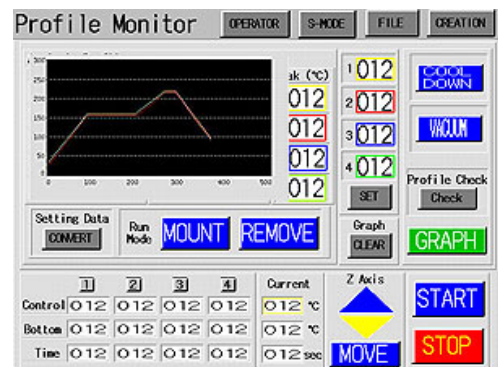
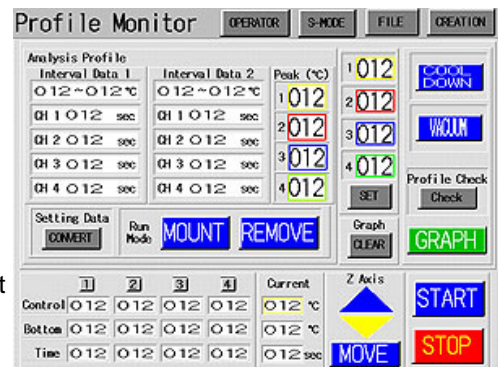
Profile Monitor Screen has two kinds of the displays, one is for graph data and other one is for the analyzed data. they can changed and checked on the screen.

Measurement of temperature is possible at 4CH. However, CH1 is used for control at the time of ITTS automatic operation.

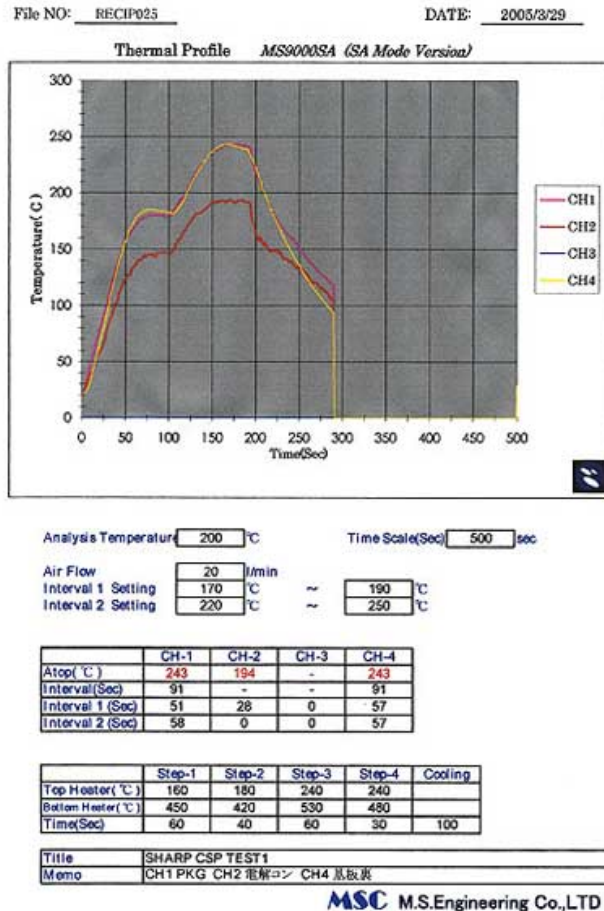
Data analysis is peak temperature for each CH, and the time interval for each CH at the temperature specified in before. It can be check at the 2 points.

When it should not be completed with ITTS. (In for example, the case of special parts etc.)

ITTS data can be transmitted to S mode operation screen of 6+1 zones. the temperature profile is finely correctable on S mode screen.



Data Sample



the profile data can be sending to the PC. It is transmitted in the SVC mode data of the Excel. the data sample showed And the data is printed out from the PC as "the data sample".

the data sample is shown as:

CH-1 Surface on the PKG.

CH-2 Under the board.

CH-4 At the solder ball.

ITTS is automatically operated so tdat the temperature of the solder ball and the temperature on the surface of the PKG may almost be set to zero.

Supplementary heating mode

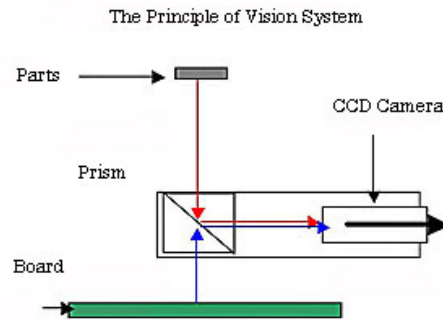
It is the additional special heating mode, when completed of the original profile operation.

tdis mode is used for removal in case of the PKG wtd under fill. In such a case, the nozzle is not evacuated when the usual heating finishes. the nozzle goes up to the specified position, and the heating is continued by the specified. And then the PKG is removed or the land on the board is cleaned.

tdis function is effective when reworking of two kinds of the parts wtd heat load capacity differs. For example, it is removing of the CSP wtd the shield cover etc.

The Vision System

the function of the positioning is very important function of the rework station. Since it is from small CSP of fine pitch lead to BGA of large size recently. MS9000SA rework station has the highly efficient vision system.



Positioning Screen by the Direct Image:

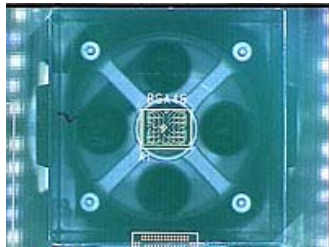


Fig 1

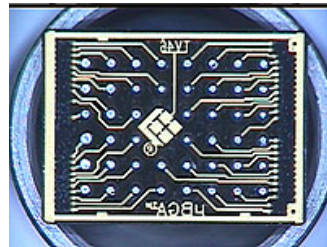


Fig 2

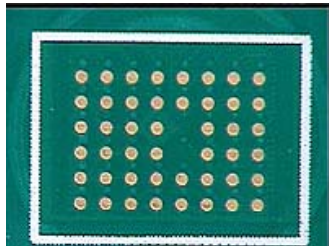


Fig 3

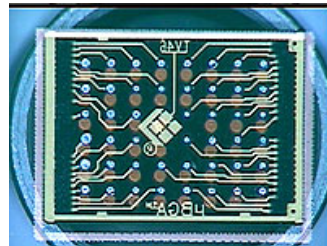


Fig 4

Positioning Screen by the splitter Image:

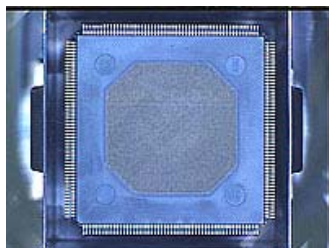


Fig 5

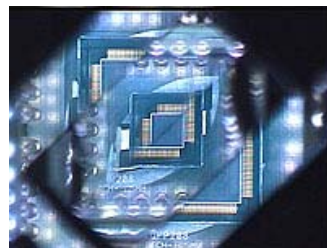


Fig 6

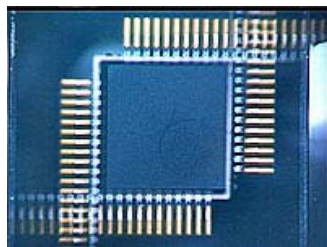


Fig 7

When the size of the PKG is 27mm or more, the portion of a diagonal image is cut off and it indicates

by expansion.

Fig-5:40mm QFP

Fig-6:Cut-off image.

Fig-7:Expansion image

It can positioning in high accuracy

Accessories

The process for the reworking required many kinds of the Jigs, attachments and also other machines. we are preparing all of them required for the process.

Standard Accessories:

1. Board support Jig (L size x 4 / S size x 4)
2. Under board support pins system (2 rails and 4 pins)}
3. Board Stopper x 1
4. Power Cable (3 cores) x 1 (approx. 5M)
5. Air Tube x 1 (6mmD approx. 3M)



Board Support Jig

Options

1. Re flow Nozzle: It choose according to the size.
2. Wide Bottom Heater: It must be equipped by us.
3. Sensor Kit: it consisted of 5 sensors.
4. Test Board Kit: It is for calibration for vision system.
5. Solder Printing Jig: Model SND is handy printing Jig.
6. Package Supply Adapter: for easy supply of the BGA.
7. Re-balling Jig: Manual re-balling Jig.
8. PCB Prevention Jig: for preventing warp of the board.
9. BGA Scope: Visual check of the BGA ball.
10. X Ray Inspection System: soldering check
11. Fine pitch CSP Re-balling and printing Jig



Nozzles



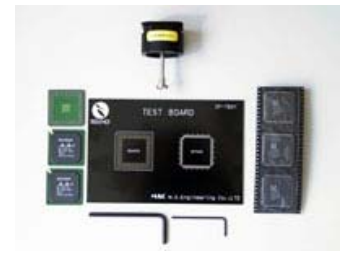
Wide Bottom heater



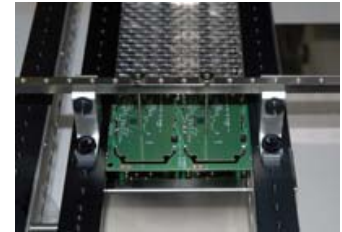
ST50K Sensor Kit



MSX500 X Ray Inspection System



OP-TB01 Test Board Kit



Board prevention Jig

Specifications

Item	Specifications
Board size	50x50--- 400x500mm(L Type)
thickness	0.5--3.5mm
Weight	3Kg max.
Top Space	up to 45mm max.
Bottom Space	up to 25mm max.
XY Table Fine Adjust	+&- 5.0mm max.
Moving Range	150x200mm max.
Board Holder	Z Slot or Holder Jig
Board Support	Under side 4 pins by 2 rails
Z Axis	Motor Controlled
Accuracy	Repetition Accuracy: +&-:0.025mm
Adjustable Angle	Nozzle Angle Adjuster:+&- 5 degrees
Vision System	Component Size: 2.0x2.0/50x50mm
Magnification	:zooming x75 max.
Focus	Auto/Manual selectable
Monitor	On the touch screen (NTSC monitor is connectable)
Splitter	>Splitter/Direct selectable
Top Heater	Hot air 260x4=1040VA
Bottom Heater	Standard:by IR 1000VA (150x300mm)
	Optional Wide Type IR3000VA (300x450mm)
Controller	10 inch Color Touched Panel System
Temp. Controller	ITTS Auto-Thermal-control system
Manual Mode	6+1 zones PID Control available
Data Setting	Top heater: 000---450
	Bottom Heater: 000---600
Time Range	Heating: 000----999 sec.
	Cooling: 000----999 sec. (Manual/Auto)
Temp. Measuring Accy: $\pm 0.5\%FS+1C$	SA mode: 3CH+1(ITTS) by CA-K Sensor
	S mode 4 CH
Data Save	Flush-memory 100 files max.
Data Analyzer	Peak and Time interval for each CH.
Power	220-240V AC 2 phase 2.5KVA
Air	0.5Mpa (N2 possible)
Dimension	650Wx860Dx730Hmm
Weight	80Kg approximate.

The specification are subject to change without notice.