

Model RSS-3X210

Compact Reflow Solder System with lift pins



- For up to 12 wafers with 100mm dia.
- Temperature up to 350 °C
- Ramp up rate up to 120 K/min
- Ramp down rate 60 K/min
- with vacuum up to 10^{-3} hPa
- active cooling
- production machine with small foot print

Technical and design changes reserved

FEATURES

- Precise ramp up and fast ramp down rates
- Up to 4 internal gas lines
- Data logging
- hard coated heating plate with lift pins
- PIS Eurotherm controller
- Small foot print

APPLICATIONS

- Reflow Solder Processes without flux
- Operation with inert gas, Oxygen, Hydrogen , Forming gas, Formic Acid
- Lead free soldering
- Resistor paste firing

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- Vacuum Soldering oven as table top version
- Programmable temperature profiles
- Record of process data
- Process in different gas atmospheres (inert gases)
- Perfect lab tool for small production purpose

APPLICATION

The **RSS-3X210** Reflow Solder System is an excellent tool for various solder processes up to 100 mm diameter wafer (12 pcs in one run).

Some examples for applications: Laboratory furnace for all kind of developers implementing and researching new processes, prototype research, environmental research purposes and for small pre-series or series.

PROCESS GASES

Beside standard process gases, like Nitrogen, Oxygen, Forming Gas the system can also be used with pure Hydrogen (**Option: H2 and H2S**). The chamber is sealed and can easily be cleaned.

FLOW METER

One gas line with Flow Meter (FM-EL) (manually operated with digital display) is default, one more gas line (**Option: FM-EL**) is possible. Also a Mass Flow Controller can be chosen.

VACUUM

The system is vacuum capable of up to 10^{-3} hPa.

TEMPERATURE

The maximal achievable temperature is 300 °C).

TEMPERATURE DISTRIBUTION

The hot plate allows an excellent temperature distribution and homogeneity.

PROGRAMMING

The RSS-3X210 is equipped with a Eurotherm 2604 precision temperature controller which allows the programming directly on the unit or by using the USB interface and comfortable programming on a PC. It is possible to store 20 programs with 100 steps each.

COOLING

The hot plate is active cooled. For chamber housing cooling an external cooling is required (we recommend a chiller (**Accessories: WC-I**)).

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SPECIFICATION

Max. part qty/size	for 12 wafers 100mm dia. each
Chamber material	Aluminium chamber (chamber area: 210 mm x 630 mm)
Vacuum capability	Up to 10^{-3} hPa
Temperature max.	300 °C
Temp. unifomity	$\leq 1,5$ % of set temperature
Heating	IR Lamps crossed aligned (18 kW)
Ramp up rate	Up to 120 K/min
Ramp down rate	T= 300°C > 200°C: 90 K/min
Flow Controller	Manually adjustable Flow meter with digital display for Nitrogen
Cooling Chamber	By external water cooler
Cooling Hot Plate	By external water cooler
Controller	PID Controller

TECHNICAL DATA

Weight	820 mm x 630 mm x 315 mm (W x D x H)
Electrical connection	100 kg (estimated) CEE 3x32 A, 230 V, 3 ~ + N + PE

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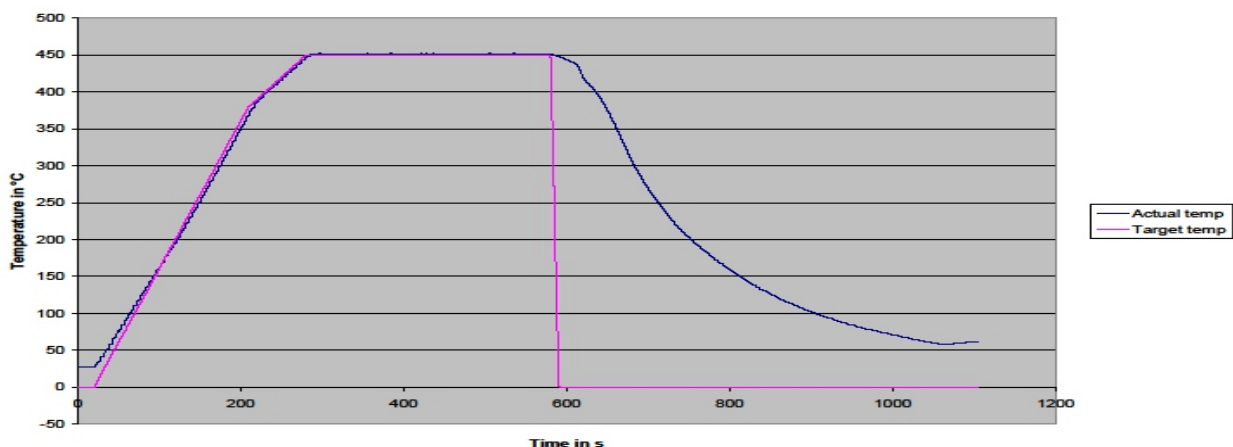
OPTIONS

RSS-FA	Formic Acid module (Module with Vessel for using Formic acid) with gas line
RSS-FT	Flux trap
RSS-FM-EL	Additional gas line with manually adjustable flow meter and digital display (max. 4) (additional flow meter on request)
RSS-MFC	Additional gas line with Mass Flow controller (total: max 4 gas lines)
RSS-H2	Module for using 100% Hydrogen including one FM-EL (total: max. 4 gas lines)
RSS-H2S	Safety device to prevent uncontrolled emission of hydrogen
RSS-TC	Additional thermocouple to measure on device (plugged in chamber) for external measurement tool (max. 4)
RSS-VM	Vacuum measurement with vacuum sensor (when no pump is ordered)

ACCESSORIES

MP	Membrane Pump for vacuum up to 10 hPa with manometer
MPC	Chemical Resistant vacuum pump with manometer (when option FA is ordered)
RVP	Rotary Vane pump for vacuum up to 10^{-3} hPa with oil filter and vacuum sensor
WCIII	Closed loop water cooling system (stand alone)

VSS-450-300 with graphite plate heating-cooling profile



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