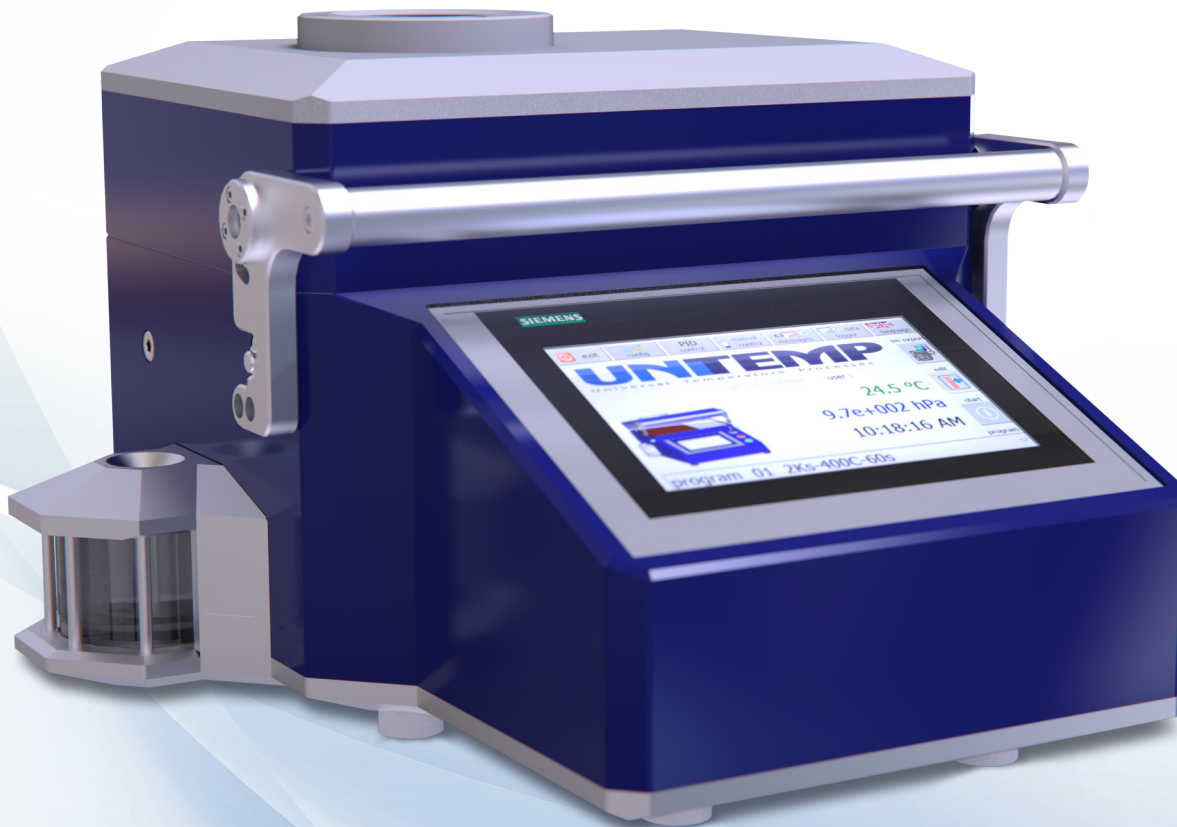


Mini Reflow Solder System with vacuum for fluxless soldering



RSS-160-SC with integrated formic acid module

Model RSS-Series RSS-110-S, RSS-160-SC, RSS-210-SC, RSS-310-SC

- Heated area
RSS-110-S: 110 mm x 110 mm
RSS-160-SC: 160 mm x 160 mm
RSS-210-SC: 210 mm x 210 mm
RSS-310-SC: 310 mm x 310 mm
- Ramp up rate up to 180 K/min.*
Ramp down rate up to 180 K/min.*
- Water cooling
- SIMATIC® controller
- 7" touch panel
- Vacuum up to 10^{-3} hPa
* depends on model

Application

- Reflow Solder Processes (fluxless)
- Lead free and void free soldering
- Operation with inert gas, Oxygen gas, Hydrogen gas, Forming gas, Formic Acid (depends on model)

Features

- Precise ramp up and fast ramp down rates
- Excellent temperature uniformity
- One gas line (Mass Flow Controller) with 5 nlm Nitrogen
- Data logging (USB, Ethernet)
- Hotplate heated by heater cartridges or IR lamps and cooled with water
- 50 programs with 50 steps each
- Small foot print

UNTEMP
Universal Temperature Processes

RSS-110-S, RSS-160-SC, RSS-210-SC, RSS-310-SC

- Reflow Solder System as table top version
- Programmable temperature profiles
- Monitoring and read out of process data
- Processes in different gas atmospheres (inert gases)
- Perfect lab tool due to small dimensions and weight

Application

The RSS-110-S, RSS-160-SC, RSS-210-SC and RSS-310-SC, Reflow Solder Systems are excellent tools for various solder processes up to 310 mm x 310 mm substrate size and height (from 40 mm up to 70 mm) (extended height as option).

Some examples for applications:

Laboratory furnace for all kind of developers implementing and researching new processes, proto-type research, environmental research purposes and for small pre-series or series.

Process Gases

Beside standard process gases, like Nitrogen, Oxygen, Forming Gas the system (depends on model) can also be used with pure Hydrogen (Option: H₂ and HS₂). The chamber is sealed and can be easily cleaned. The Option RSS-FA allows the use of formic acid for void free solder results.

Flow Control

One gas line with Mass Flow Controller (MFC) is default. Options like Formic Acid Module (RSS-FA) or use of 100 % Hydrogen (RSS-H₂) are controlled by an own Mass Flow Controller or with a shared gas line.

Vacuum

The system is vacuum capable to 10⁻³ hPa. A membrane/diaphragm pump, a chemically resistant pump (recommended when RSS-FA is used) and a rotary vane pump are available as accessories.

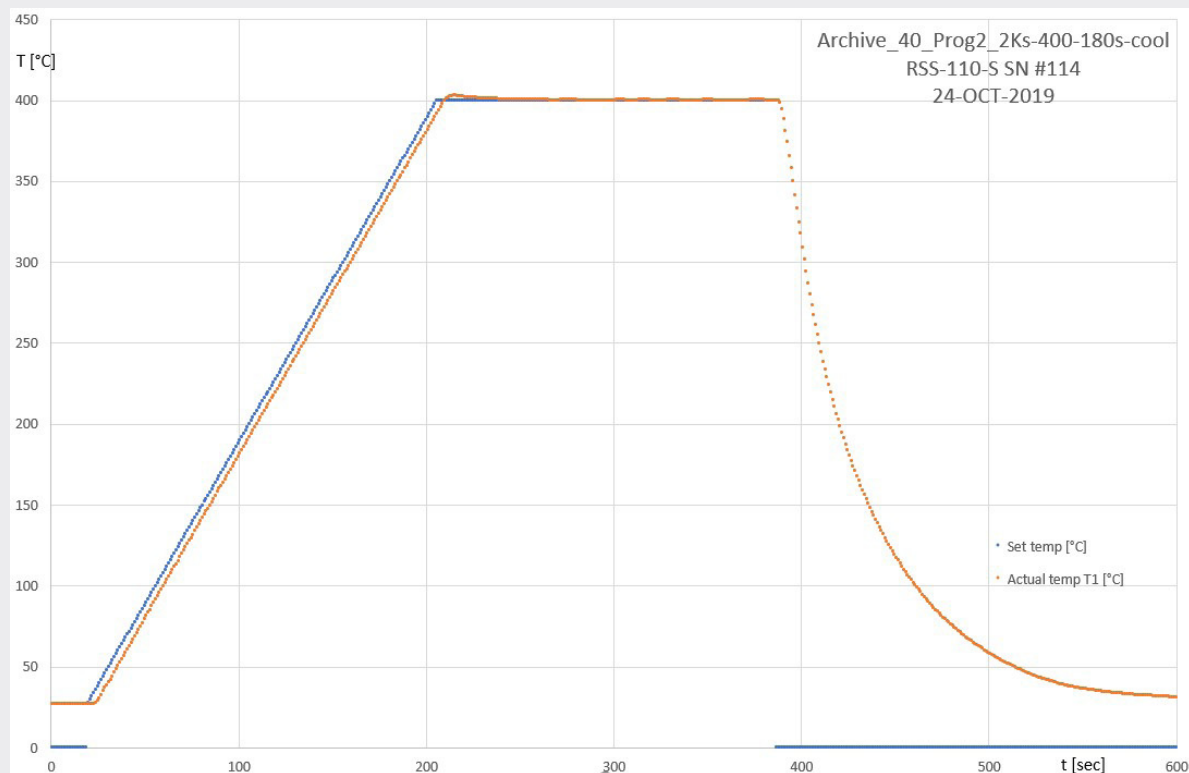
Temperature Distribution

The max. temperature is 400 °C (optional up to 500 °C). Key features are precisely controlled fast ramp-up (up to 180 K/min. depending on model) and ramp-down rates (up to 180 K/min). The hot plate offers an excellent temperature distribution and homogeneity.

Programmig

The systems are equipped with a 7" touch panel which allows easy and comfortable programming directly on the unit. 50 programs with 50 steps each can be stored. Unlimited programs can be up – and downloaded from an external storage medium.

Profile RSS-110-S



Process Control

The software allows the permanent monitoring, read- out and analysis of

- temperature
- process gas flow
- cooling water level status
- pressure value and status

Cooling

The hot plate is water cooled. An external water cooling is required (we recommend a closed loop water cooling system)

(Accessory: WC I or WC II)

RSS-110-S, RSS-160-SC, RSS-210-SC, RSS-310-SC



RSS-160-S



RSS-160-SC and RSS-210-SC

Specification

	RSS-110-S	RSS-160-SC	RSS-210-SC	RSS-310-SC
Heated area	110 x 110 mm ²	160 x 160 mm ²	210 x 210 mm ²	310 x 310 mm ²
Chamber height	40 mm	70 mm	70 mm	70 mm
Temperature range	400 °C	400 °C	400 °C	400 °C
Max. ramp up rate	120 K/min.	100 K/min.	180 K/min.	120 K/min.
Max. ramp down rate	180 K/min.	120 K/min.	120 K/min.	83 K/min.
Interface	Ethernet/ USB	Ethernet/ USB	Ethernet/ USB	Ethernet/ USB
Controller	SIMATIC® 7" touch panel	SIMATIC® 7" touch panel	SIMATIC® 7" touch panel	SIMATIC® 7" touch panel
Chamber cover	with 60 mm viewing window	with 60 mm viewing window	with 60 mm viewing window	with 60 mm viewing window
Programs	50 programs storable each with 50 segments	50 programs storable each with 50 segments	50 programs storable each with 50 segments	50 programs storable each with 50 segments
Dimensions (W x D x H)	274 x 517 x 215 mm	365 x 520 x 275 mm	365 x 570 x 280 mm	465 x 670 x 280 mm
Weight	14 kg	25 kg	27 kg	48 kg
Voltage	230 V, 1.6 kW 115 V, 1.2 kW	230 V, 2.4 kW 115 V, 1.2 kW	230 V, 9 kW 115 V, 7 kW	230 V, 3 p, 18 kW

Options

	#	RSS-110-S	RSS-160-SC	RSS-210-SC	RSS-310-SC
Chamber height 80 mm instead of 40 mm	-EH	✓	–	–	–
Temperature extension up to 500 °C	-HT	✓	On request	On request	On request
Formic acid module with gas line incl. interlock (External)	FA I	On request	–	–	–
Formic acid module with additional gas line	FA II	On request	–	–	–
Formic acid module with shared gas line incl. IL	FA III	–	Standard	Standard	Standard
Add. Gas lines with Mass flow Controller	MFC	–	1 pc	1 pc	1 pc
Interlock option	-IL	✓	Standard	Standard	Standard
Oxygen analyser (not tolerant against H2 traces)	Ox I	–	On request	On request	On request
Add. Flexible thermocouple with external conn.	TC I	max. 1	max. 2		
Add. Flexible thermocouple with internal conn.	TC II				
USB Camera with LED light	USB	✓	✓	✓	✓
Vacuum up to 3 hPa	VAC I	✓	Standard	Standard	Standard
Vacuum up to 10⁻³ hPa (opt.)	VAC II	✓	✓	✓	✓
Side viewing window on both sides (opt.)	-SW	–	On request	On request	On request

