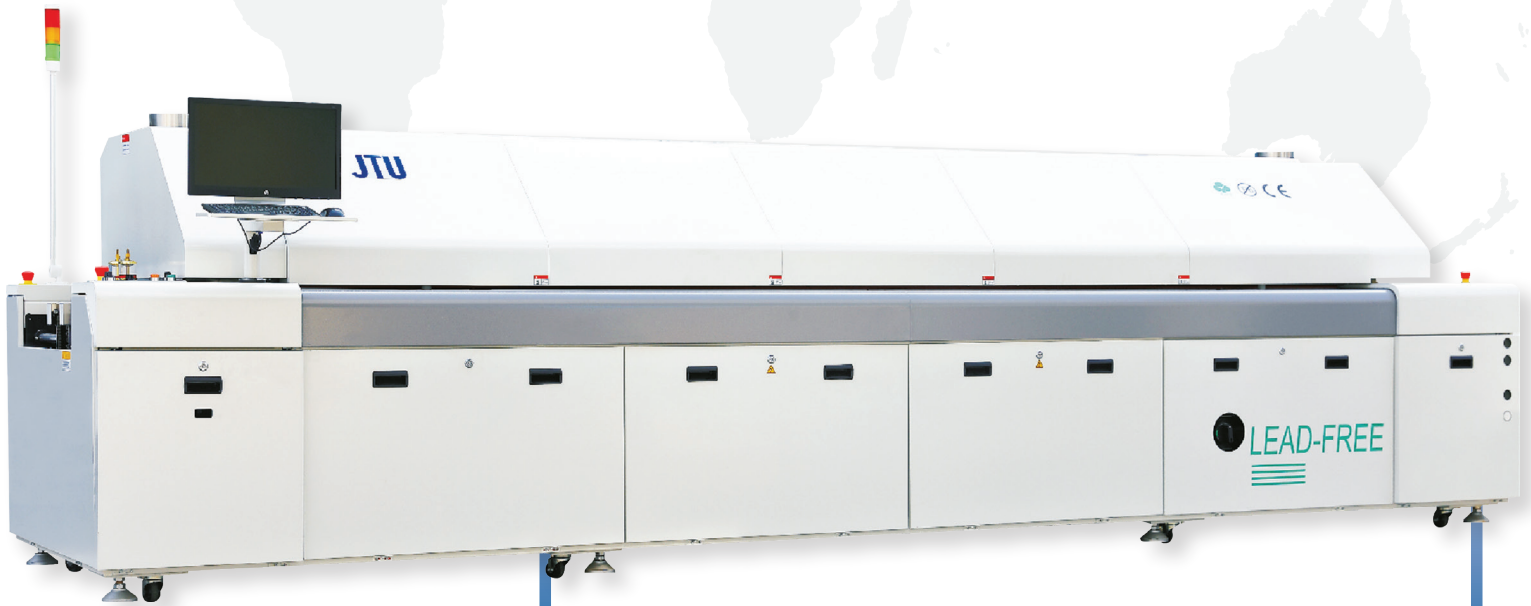


JTU

Excellent heat transfer and recovery efficiency with full traceability,

RS-eco SERIES REFLOW OVEN

is no longer a black box.



- ⚙ Industry 4.0 ready
- ⚙ What you set is what you get
- ⚙ Smart jet nozzle design
- ⚙ Longer effective heating length
- ⚙ Dual lane, dual speed, dual profile
- ⚙ Eco-friendly & easy maintenance

RS-600e/Ne

6 Heating Zones + **1** Cooling Zone

RS-800e/Ne

8 Heating Zones + **2** Cooling Zones

RS-1000e/Ne

10 Heating Zones + **2** Cooling Zones

RS-1200e/Ne

12 Heating Zones + **2** Cooling Zones

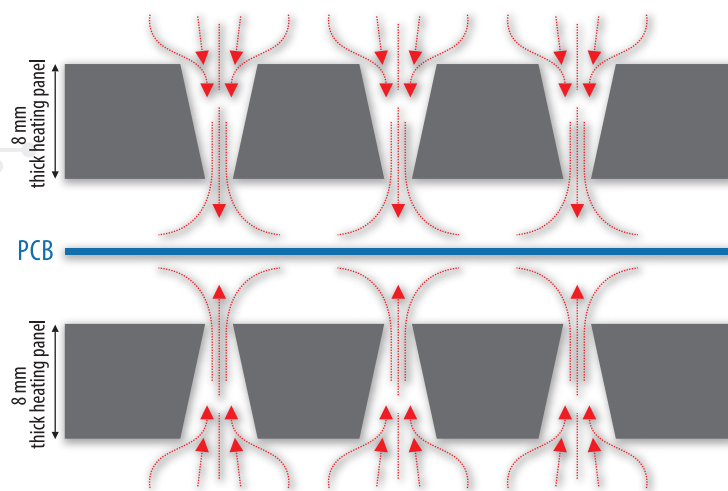
TRACEABILITY (INDUSTRY 4.0 READY): AUTO PROFILING SYSTEM (E-APS) OR PROBOT



- ✦ Eliminate expensive periodic manual profiling
- ✦ 1 hour 1 profile (e-APS), 1 PCB 1 profile (PROBOT)
- ✦ Reduce production downtime
- ✦ A complete thermal profile management with full traceability

UNIQUE AND EFFECTIVE JET NOZZLE DESIGN

- ✦ Embedded jet nozzles inside 8 mm thick heating panels
- ✦ Heating panels store energy for quick recovery during full load
- ✦ Reduced manufacturing cost
- ✦ Reduced maintenance down time
- ✦ Easier to clean



STABLE & REPEATABLE PROFILES: "WHAT YOU SET IS WHAT YOU GET"

- ✦ 8 thermal couples attached evenly across the test jig front edge to record the heat transferred to the entire 400 mm conveyor width
- ✦ Temperature difference among all 8 thermal couples actual reading and the set temperature are < 1°C (Refer to the profile)
- ✦ Fully demonstrate excellent hot air transfer efficiency with minimum heat loss
- ✦ Huge saving on electricity bill on reflow oven and air-conditioning in the production floor with cooler oven external body temperature

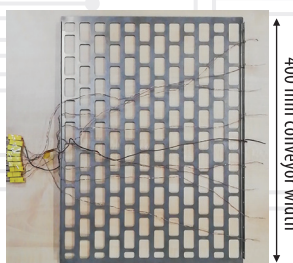
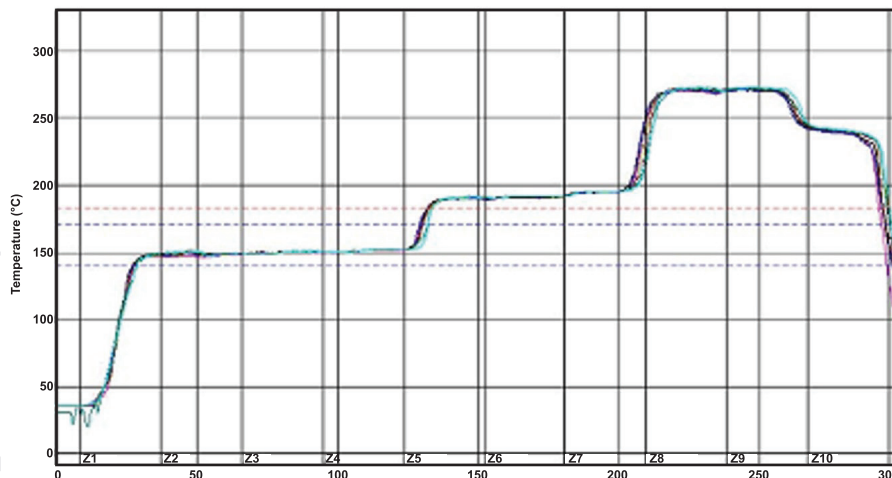


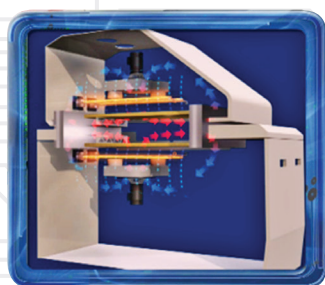
Photo of a 300 x 400 mm metal mesh test jig

RS-1000e

Setpoints (°C)										
Zone	1	2	3	4	5	6	7	8	9	10
Top	150	150	150	150	190	190	190	270	270	240
Bottom	150	150	150	150	190	190	190	270	270	240
Conveyor speed (inch/min) 35.43										



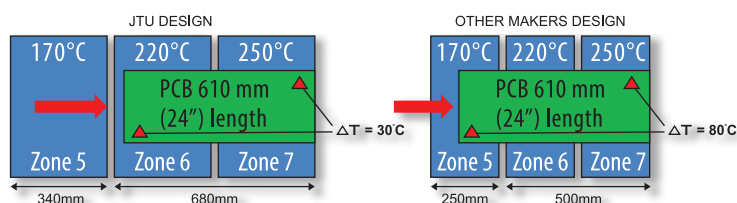
HIGH EFFICIENCY FRONT & REAR FLOW CONVECTION



- ✦ Minimize zone-to-zone heat migration which is usually seen on conventional left & right flow

ADVANTAGE OF LONGER HEATING ZONES

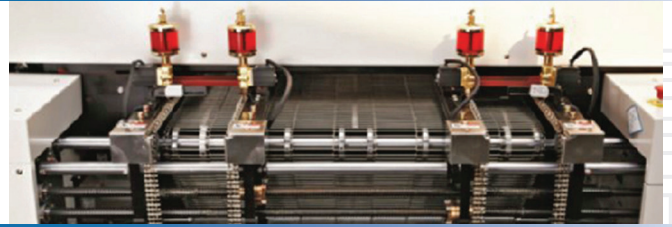
For large PCB:



- ✦ Smaller ΔT on PCB minimizes PCB warp

DUAL LANE WITH INDEPENDENT SPEED CONTROL AND AUTO CONVEYOR WIDTH ADJUSTMENT (OPTION)

- ⚙ Increase throughput



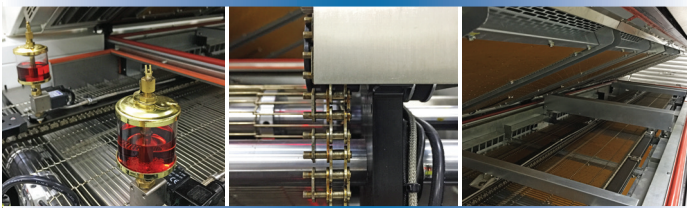
EFFECTIVE EXHAUST AND FLUX MANAGEMENT SYSTEM

- ⚙ Reduce maintenance frequency
Air oven: 35 - 55 days Nitrogen oven: 15 - 25 days

INDEPENDENT AIR VELOCITY AND TEMPERATURE CONTROLLING SYSTEM

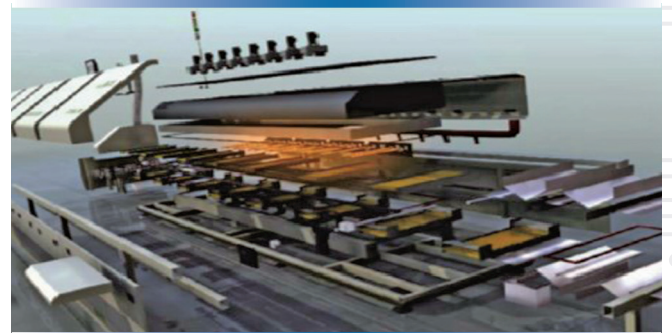
- ⚙ Provide flexible process control to easily handle various complicated soldering requirements

RELIABLE CONVEYOR



- ⚙ Programmable automatic oil lubrication
- ⚙ Heat treated conveyor rails: Ensure long durability
- ⚙ Double pin chain: Avoid oil contamination on PCB
- ⚙ Multiple support points: Maintain parallelism
- ⚙ Auto conveyor width adjustment (Option)
- ⚙ Center board support chain (Option)

MODULARIZATION DESIGN, OPEN HOOD & ORGANIZED ELECTRONIC CONTROL PARTS

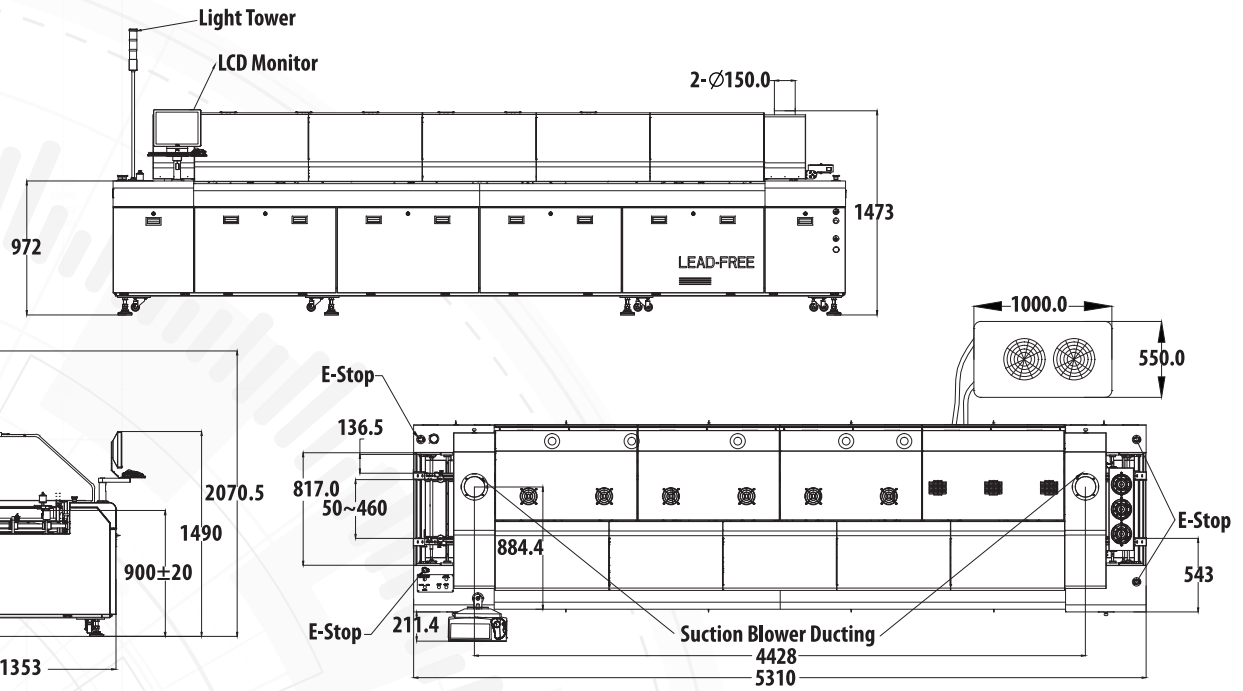


- ⚙ Make the service and maintenance more easily

MODEL	RS-600e	RS-600Ne	RS-800e	RS-800Ne	RS-1000e	RS-1000Ne	RS-1200e	RS-1200Ne
GENERAL								
Dimensions: L x W x H	3,605 x 1,353 x 1,490 mm		5,310 x 1,353 x 1,490 mm		6,100 x 1,353 x 1,490 mm		6,915 x 1,353 x 1,490 mm	
Weight	Approx. 1,600 kg	Approx. 1,700 kg	Approx. 2,150 kg	Approx. 2,200 kg	Approx. 2,300 kg	Approx. 2,400 kg	Approx. 2,600 kg	Approx. 2,700 kg
No. of heating zone	Top 6 & bottom 6		Top 8 & bottom 8		Top 10 & bottom 10		Top 12 & bottom 12	
No. of cooling zone	1 (Inside)				2 (Inside)			
Effective heating length	2,330 mm		3,121 mm		3,891 mm		4,706 mm	
Cooling zone length	400 mm				800 mm			
HEATING SYSTEM								
Temp. control method	PID closed loop control + SSR drive							
Range of temp. set-up	Room temp. – 300°C							
Hot air velocity adjustable range	Min. 20 Hz; max. 50 Hz							
Max. temp. setting difference between preheating & soldering zones	70°C							
Max. temp. setting difference between each preheating zones	40°C							
Max. temp. setting difference between each soldering zones	40°C							
Precision of temp. control	± 1°C							
Temperature deviation tolerance on PCB	± 1.5°C							
CONVEYOR SYSTEM								
Clearance	Top 30 mm & bottom 25 mm							
PCB width range	50 – 460 mm							
Conveying speed range	300 – 2,000 mm/min							
PCB transmission mode	Rails & mesh							
Conveying height	900 ± 20 mm							
Fixed rail side	Front (Optional: Rear)							
PCB conveying direction	Left to right (Optional: Right to left)							
Conveyor width adjusting method	Motorized							
Upper chamber open method	Motorized							
Automatic lubrication	Standard							
UTILITIES								
Total power	42 kW	45 kW	64 kW	67 kW	80 kW	83 kW	92 kW	95 kW
Start-up power	26 kW	28 kW	30 kW	32 kW	36 kW	38 kW	40 kW	42 kW
Normal power consumption	Approx. 8 kW	Approx. 10 kW	Approx. 10 kW	Approx. 12 kW	Approx. 11.5 kW	Approx. 13 kW	Approx. 13 kW	Approx. 14 kW
Nitrogen consumption: ~1000 ppm	N/A	0.35 m³/min	N/A	0.37 m³/min	N/A	0.40 m³/min	N/A	0.50 m³/min
Warm-up time	Approx. 25 mins		Approx. 30 mins		Approx. 35 mins		Approx. 38 mins	
Power supply	3 phase, 380 VAC, 50/60 Hz (Optional: 220 VAC)							
Exhaust volume	10 m³/min x 2 pcs							
OPTIONAL FEATURES								
Automated profiling system (OEM by KIC)				MES software (i4.0)				
Center board support (CBS) system – No mesh belt				Automatic CBS adjustment				
Dual lane conveyor				Dual speed control for dual lane conveyor				
Upgrade max. set temperature to 350°C				Upgrade max. conveyor width to 610 mm				
Automatic conveyor width adjustment				Transformer (For power supply other than 3 phase, 380 & 220 VAC, 50/60 Hz)				

⚙ -Ne models are Nitrogen Oven with water chiller.

RS-800Ne DIMENSION



JTU

Manufacturing Supremacy with Absolute Control

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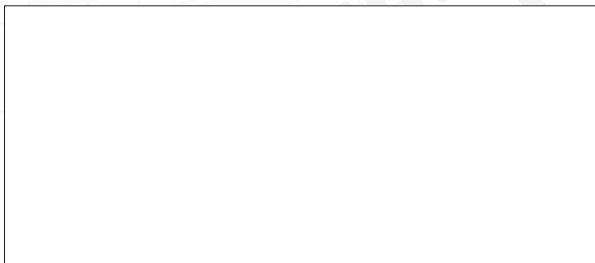
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