



REFLOW SOLDERING SYSTEM

REFLOW SOLDERING SYSTEMS



FOR LEAD-FREE

N₂ REFLOW SYSTEM

NEW



Premier
Eco-design
Products

**New heat insulation design
with energy saving effect!**

N₂ consumption largely reduced!

Air conditioning load reduced!



TNV Ver. III

"P" Panel "X" Panel

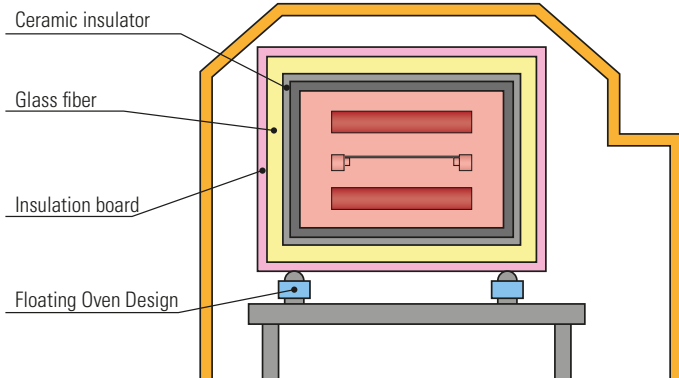
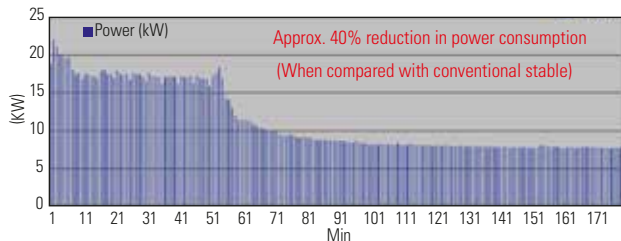
**New structure of the furnace body
insulation thermal resistance value twice**

Power consumption about 40% reduced

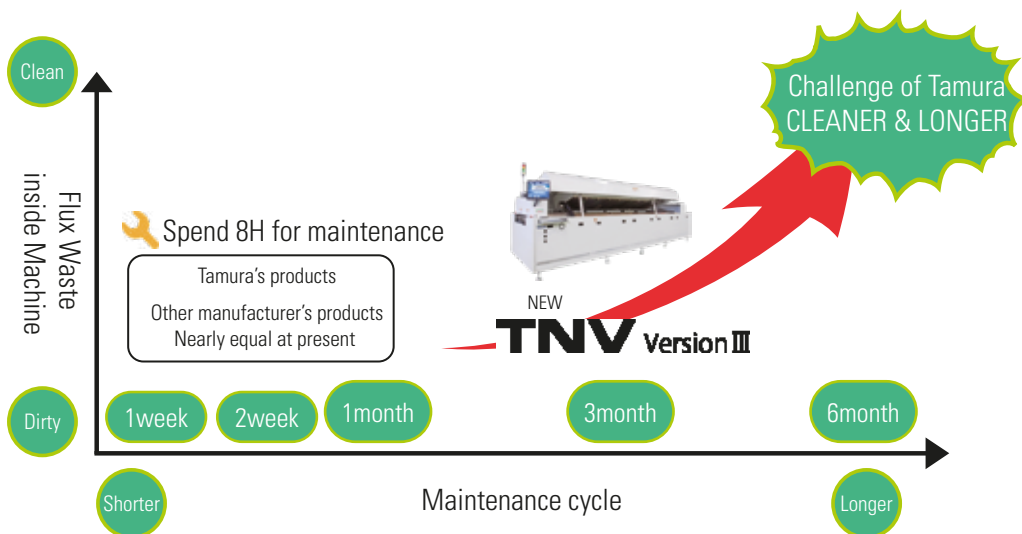
Average effective power in stability **7.6kW** Our previous model 12.6kw

At our showroom temperature 23°C Measured after system operated for 6 hours

- Power saving with the new insulation structure of furnace casing
- Suppression of heat transfer to the frame floating structure by the furnace body

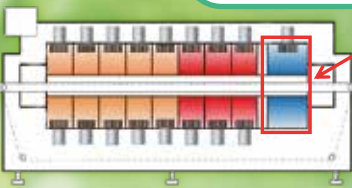


Tamura's new development concepts



Tamura’s new development concepts

The Problems of Flux Waste

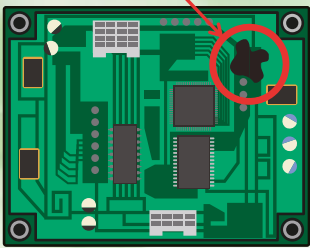


Deposited Waste at Cooling zone



Cooling zone

Drop on the PCB



Potential for PCB module failure from corrosion, short-circuit, or conductor failure

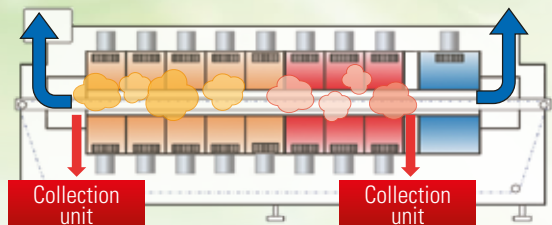
STANDARD FUNCTIONS

- PC without HDD
- Oxygen analyzer
- Indication of temperature profile
- Multi-language version (Japanese, English, Chinese)
- Flux collection unit
- PCB jam alarm
- Fan inverter individually controllable
- Maintenance timer
- Energy-saving mode
- External monitoring function

OPTIONS

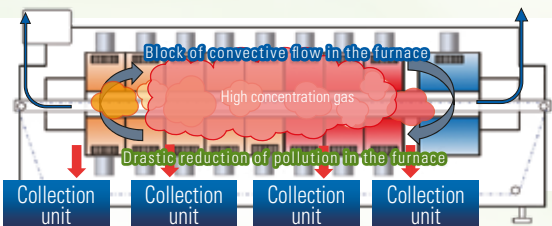
- Automatic width control
- Warp preventive unit
- Uninterruptible Power Supply (UPS)
- Water cooling unit
- Oxygen density controller
- PCB manual exhaust handle
- Heater broken alarm
- Area sensor
- Oxygen deficiency alarm
- Activated carbon reproduction unit
- Profile measurement unit
- Overheat detection unit
- Simple automatic setup function

Current model



New model

TNV Version II



“P” Panel “X” Panel

About the size of each lineup
“P Panel” and “X Panel”

Supports all conveyor widths and numbers of zones Covers from standard model to high-performance model

Series		Standard Model			High Performance Model		
Heating		P-TYPE Panel			X-TYPE Panel		
Zones							
Conveyor width		8 Zones	10 Zones	12 Zones	8 Zones	10 Zones	12 Zones
TNV-M-CR	300mm	○	○	○	○	○	○
Single Lane							
TNV-L-CR	510mm	○	○	○	○	○	○
Single Lane							
TNV-MT-CR	330mm	○	○	○	○	○	○
Single Lane : Twin Chamber	(Per Lane)						

17-inches operation screen panel

- Visibility that allows recognition at a glance
- Operation system inherited from the previous models and reduced start-up time

PCB photo and documents stored for each recipe

- Confirmation of actual object or precautions/special notes for process changeover
- Association of JPG data

Simple preparation of unique energy saving mode

Tamura Reflow Integrated Total Online Network

Easy to manage equipment history and equipment situation

Maintenance timer

Equipment inspection notification function

This function is the ability to notify the details of inspections or equipment, and cleaning the life of the parts used in the interval any day of the week, the date that you register in advance.

Will be displayed on the PC screen of reflow, the completion status of the check and when maintenance work is understood by anyone.



Monitoring the status of equipment operation

Alarm monitoring

Profile analysis

Edit and create equipment setting data

Display of alarm history

Monitoring status of the equipment will be available from the equipment to have a feature by Web server to your remote PC.

TNR15-225LH

Ultra-compact reflow

SPECIFICATION	TNR15-225LH
Applicable boards	MAX. W150 x L150 (mm) - MIN. W50 x L50 (mm)
Component height	Upper 10, 15, 20, 25 mm - Lower 10, 15, 20, 25 mm
Circuit board put allowance	3 mm
N ₂ Gas supply	99.99 % - 0.4~0.7 MPa - 150 NL/min
Flow height from floor	900 +/- 20 mm
Power source	AC200V - 50/60Hz - 3P 21kVA - 61A (at synchronize start)
Dimensions of machine	W1210 x L2200 ¹ x H1370 ² mm
Weight	approx. 600 kg
Conveyor speed	0.1~0.7 m/min

¹ Except inlet and outlet sprockets ² Except Exhaust Duct, Signal Tower and LCD Monitor



STANDARD FUNCTIONS

- Touch panel control
- Activated carbon reproduction unit
- Flux collection unit
- PCB stop alarm
- Fan inverter individually controllable

OPTIONS

- Uninterruptible Power Supply (UPS)
- Water cooling unit
- Oxygen density controller
- PCB recovery handle
- Heater broken alarm
- Area sensor

Automatic Setup

No trouble production exchange

Setup functions can be selected depending on the application bar code setup

1) Simple Bar code set-up

The method by a bar code reader to a PC on the reflow

2) Semi auto set up arranged

Arrangements by worker to connect a bar code reader to a PC for setup

3) Actual setup

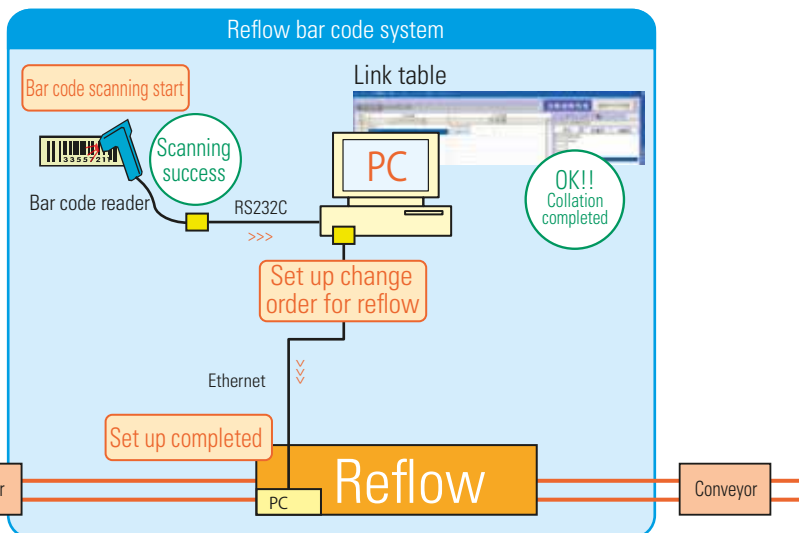
The bar code reader attached to the conveyor of the previous of reflow, By the QR code picture of the board. Make the changeover automatically reads

4) Arrangements with external systems

Interlocked with the mounter, etc.

(For more information, please contact our sales in charge).

5) The new machine can be installed as an option.





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COMPACT SIZE

First in the SMT industry,
8 zones in total length 3 meters.

TNV-EM SERIES

Type "MINI"

Type "mini" Equipment lineup

Model	TNV25-308EM
Zones	8
Length (mm)	3060

- 250 mm width corresponding space-saving machine
- Temp. profile testing will be supported more easy.
- High performance and compact!
- You can select "P Panel" "X Panel".

SPECIFICATION	TNV25-308EM
Applicable boards	MAX. W250 x L330 (mm) - MIN. W50 x L50 (mm)
Component height	Upper 10, 15, 20, 25, 30 mm - Lower 10, 15, 20, 25, 30 mm
Circuit board put allowance	4 mm
N ₂ Gas supply	99.99 % - 0.4~0.7 MPa - 250 NL/min
Flow height from floor	900 +/- 20 mm
Power source	AC200V - 50/60Hz - 3P 27kVA - 78A (at multi grouping flipflop start)
Dimensions of machine	W1310 x L3060 ¹ x H1374 ² mm
Weight	approx. 1700 kg
Conveyor speed	0.1~0.7 m/min

¹ Except inlet and outlet sprockets ² Except Exhaust Duct, Signal Tower and LCD Monitor
All kinds of other size variations are available Specifications are subject to change without prior notice. Please acknowledge it beforehand.



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