

WAVE SOLDERING SYSTEM

HC25-32HNF & HC40-38HNF

Features :

- The soldering machine can be lowered in total height. - Enabling the operator to ensure the effective monitoring of the process.
- The horizontal type can realize an inline soldering machine system. – Rock to Rock.
- The fluxer is installed separately from the machine to enhance the maintainability. TAF40-12D2, TAF40-12V
- Oxygen concentration is made stable (resulting in the reduction of N₂ Consumption).
- The installation of a large window on the upper section of the conveyor enhances the maintainability.
- Attaching gas springs to the spring-up door open enhances the maintainability.
- The horizontal conveyance prevents parts moving from just position.

Specifications : (HC25-32HNF)

| | |
|---------------------------|---|
| Power source | AC 200V-50/60Hz-3 40kVA 116A |
| Air pressure | 0.7M Pa Approx. 400nl/min |
| N ₂ Gas source | N ₂ more than 99.999 % 0.7M Pa |
| Dimensions | L : Approx. 3200 mm W : Approx. 1200 mm H : Approx. 1450 mm |
| Weight | Approx. 1750 kg (Excluding flux, solder) |

Option Units :

- Substrate's bend protective fitting
- Automatic wire-solder supply unit
- Automatic bar-solder supply unit
- Automatic conveyor width controller
- Oxygen deficiency alarm
- P.C.B.s skip detector
- P.C.B.s falling detector
- Oxygen concentration control unit
- Flux fume recovery unit

HC33-326NF & HC40-36NF

Features :

- Compact and tight-sealed M.T.S.(multi-throat stabilizer)
- The minimum installation space and easy operation in N₂ wave soldering.
- No oxidation takes place around the solder bath, which enables constant clean soldering and makes regular cleaning easy.
- Oxygen control function provides for automatic liquid flow regulation. (option)
- The electric lifter raises/lowers the soldering bath for easy maintenance. The bath can also be automatically drawn out.
- The feed direction can be readily changed for high-precision soldering.

Specifications : (HC33-36NF)

| | |
|-----------------------------------|---|
| Dimension of object circuit board | MAX : 330 mm(W)×350 mm(L)×1.6 mm(t) MIN : 50 mm(W)×100 mm(L)×0.6 mm(t) |
| Inclined angle of conveyor | 4~6 |
| Conveyor speed | 0.4~2.5 × ¹⁰⁰⁰ / ₆₀ mm/s |
| Dimensions of machine | 1450 mm(W)×5390 mm(L)×1700 mm(H) |
| Input power source | AC200V 25kVA |

HC33-28HDF2 & HC40-32HDF2

Features :

- The loading of a local N₂ hood.
- It uses a Far infrared line formula M heater for pre-heater.
- Motor-driven lifter is mounted on solder tank up/down adjusting and drawing-out mechanism.
- Foam type fluxer is mountable, beside a separate spray fluxer.

Specifications :

| | |
|-----------------------------------|--|
| Dimension of object circuit board | MAX : 330 mm(W)×350 mm(L)×1.6 mm(t) MIN : 50 mm(W)×100 mm(L)×0.6 mm(t) |
| Inclined angle of conveyor | 4~6 |
| Conveyor speed | 0.4~3.5× ¹⁰⁰⁰ / ₆₀ mm/s (Mechanical specifications) |
| Dimensions of machine | 1400 mm(W)×2800 mm(L)×1400 mm(H) |
| Input power source | AC200V 29kVA |

REFLOW SOLDERING SYSTEM

| Type of equipment | Ambient atmosphere | Width of Boards(mm) | Control system | | | Deal with Lead-free equipment exclusively for BGA |
|------------------------------|--------------------|---------------------|----------------|-------------|-------------------|---|
| | | | Manual | Touch panel | Personal computer | |
| TNR25-537PH | N ₂ | 250 | | | | |
| TNR40-577PH | N ₂ | 400 | | | | |
| TNR50-577PH | N ₂ | 500 | | | | |
| TAR30-366PH | atmosphere | 300 | | | | |
| TAR40-437PH | atmosphere | 400 | | | | |
| TAS30-30EH(N) | atmosphere | 300 | | | | |
| TAS30-30LH(N) | atmosphere | 300 | | | | |
| TRS35-20H(N) | | | | | | |
| BNS40-38TN | | | | | | |
| Pass Plasma surface reformer | | | | | | |

TNR SERIES

Features :

- High performance N₂ lead-free reflow system.
- Temperature difference between points of mounted boards is minimized by the adoption of special panel heaters arranged on the top and bottom surfaces.
- Free preparation of HAT profile with seven zone configuration (Trapezoidal profile).
- Rapid quench profiles are made possible by the adoption of forced convection cooling mechanisms built inside heat exchanger, 2 zones.
- Easy operation by personal computer control.

Specification :

| Item | TNR25-537PH | TNR40-577PH | TNR50-577PH |
|--------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Applicable boards | max.W250×L330 mm min. W50×L50 mm | max.W400×L600 mm min. W50×L50 mm | max.W500×L600 mm min. W50×L50 mm |
| Component height | Upper MAX. 20 mm Lower MAX. 20 mm | Upper MAX. 20 mm Lower MAX. 20 mm | Upper MAX. 20 mm Lower MAX. 20 mm |
| Circuit board height allowance | 4 mm(MIN. of 2.5 mm when warping is | 4 mm(MIN. of 2.5 mm when warping is | 4 mm(MIN. of 2.5 mm when warping is |

| | | | |
|---------------------------|--|--|--|
| | prevented) | prevented) | prevented) |
| N ₂ Gas supply | More than 99.99 % 0.4~0.7Mpa more than 250nl/min | More than 99.99 % 0.4~0.7Mpa more than 250nl/min | More than 99.99 % 0.4~0.7Mpa more than 250nl/min |
| Flow height from floor | 900±20 mm | 900±20 mm | 900±20 mm |
| Power source | AC200V-50/60Hz-3 63kVA at sequential start | AC200V-50/60Hz-3 81kVA at sequential start | AC200V-50/60Hz-3 55kVA at sequential start |
| Dimensions of machine | W1100×L5300× H1350 mm | W1320×L5700× H1350 mm | W1320×L5700× H1350 mm |
| Weight | Approx. 2000 kg | Approx. 2500 kg | Approx. 2500 kg |

TAR SERIES

Features :

- High performance lead-free air reflow system.
- Temperature difference between points on mounted boards is minimized by the adoption of special panel heaters arranged on the top and bottom surfaces.
- Free preparation of HAT profile (trapezoidal profile) with six zone configuration.
- Easy operation by personal computer control.

Specifications :

| Item | TAR30-366PH | TAR40-437PH |
|--------------------------------|---|---|
| Applicable boards | max. W300×L330 mm min. W50×L50 mm | max. W400×L600 mm min. W50×L50 mm |
| Component height | Upper MAX. 20 mm Lower MAX. 20 mm | Upper MAX. 20 mm Lower MAX. 20 mm |
| Circuit board height allowance | 4 mm (MIN. of 2.5 mm when warping is prevented) | 4 mm (MIN. of 2.5 mm when warping is prevented) |
| Flow height from floor | 900±20 mm | 900±20 mm |
| Power source | AC200V-50/60Hz-3 51kVA at sequential start | AC200V-50/60Hz-3 81kVA at sequential start |
| Dimensions of machine | W1100×L3600×H1350 mm | W1320×L5700×H1350 mm |
| Weight | Approx.1200 kg | Approx.1500 kg |

TAS SERIES

Features :

- Realizing high performance with stabilized temperature characteristics and free hand availability profile, it is a best seller among Tamura's Air Reflow System.
- One side hood lifting but maintenance from both sides is possible due to practical use of effective space.
- Improvement of arrangement efficiency is expected through adoption of forced cooling mechanism.
- Many options available, please enquire.

Specifications :

| Item | TAS30-30EH(LH) |
|--------------------------------|-----------------------------------|
| Applicable boards | Max. W300×L350 mm Min. W50×L80 mm |
| Component height | Upper max. 30 mm Lower max. 15 mm |
| Circuit board height allowance | 4 mm(net excluded) |
| Flow height from floor | 900±20 mm |
| Power source | AC200V-50/60Hz-3 25kVA |
| Dimensions of machine | W1200×L3000×H1400 mm |
| Weight | Approx. 900 kg |

TRS SERIES

Feature :

- Adopted high performance IP panel heater.
 - Less temperature dispersion and quick heating prevent overheating and damage to both components and materials.
- Heating section by 3-zone constitution.
 - Consisting of pre-heat 2-zone/ reflow 1-zone (total 3-zone); various adjustments are possible depending on materials and size of the substrates.

Specifications :

| Item | TRS35-20H |
|--------------------------------|-----------------------------------|
| Applicable boards | Max. W350×L400 mm Min. W50×L80 mm |
| Component height | Upper Max. 30 mm Lower Max. 15 mm |
| Circuit board height allowance | 4 mm (net excluded) |
| Flow height from floor | 900±20 mm |
| Power source | AC200V-50/60Hz-3 30kVA |
| Dimensions of machine | W950×L2000×H1500 mm |
| Weight | Approx. 650 kg |

