Alpha 1 Technologies

Series 3A and Series 3B Wave Solder



Machine Highlights

- Windows 7 Platform user friendly GUI
- PLC + Commercial computer controls, excellent reliability
- System software automatically generates backup & log files to meet ISO9000 requirement
- Lengthened Infrared Pre-heaters in 3 or 4 sections for enhanced heat transmission & distribution
- Automatic spray fluxer, spray area, timing and speed varies automatically by board model
- Built-in profiling system, software featured with analysis, saving & printing abilities
- Lengthened pre-heaters in 3 sectors, unbreakable glass covers, convenient for operation & maintenance
- Intelligent fault alert system, on-line display and record all system errors
- Adjustable wave height for Chip & lambda independently
- Featured with intermittent wave, reduce of solder dross formation
- Visual & audio alert, emergency shutdown, overloading protection to motors
- Programmable & fully automatic system on/off timer



Solder Pot comes with Chip and Lambda Wave with the option of either Titanium or Ceramic Coated Cast Iron.

User friendly interface. System automatically generates backup and log files.





1800 to 2000mm of IR and convection preheat for even heating and better temperature slope.

Optional 3 HP gas cooling allowing you to control the cool down slope.



| Model | ZKS-3A | ZKS-3B |
|-------------------------------|--|------------------------------------|
| General Specifications | | |
| Machine Dimension | L4635*W1550*H1600mm | L4620*W1550*H1600MM |
| Weight | 1200KG | 1200KG |
| Color | Grey White | |
| Main Control | Windows 7 Platform PLC Control | |
| Control interface | User Friendly GUI | |
| Pre-Heating Zones | 3 | 4 |
| Overall Per-Heating Zones | 1800mm | 2000mm |
| Cooling Zones | | 1 |
| Cooling Down Slope Gradient | Natural Air Cooled:3-4° C/sec | External 3hp Gas:3-6°C/sec |
| Exhaust Requirement | 106 CFM | |
| Compressed Requirement | Natural Air Cooled: Not Required | External Gas Chiller:4-7kgf/cm² |
| Power Requirement | 3Phase 5 Cables 480Vac 50/60Hz | 3Phase 5 Cables 220Vac 50/60 Hz |
| Startup Consumption | ≤20Kw | ≤21.5Kw |
| General Consumption | ≤6Kw | ≤6Kw |
| Heating up time | Pre-Heat: Approximately*15mi | n Soldier Pot: Approximately*90min |
| Temperature Set point | Pre-Heat: Room Temp~200°C Soldier pot: Room Temp~350°C | |
| Temperature Control | PID Closed Loop Controlled | |
| Temperature Accuracy | ±1°C | |
| Temperature Deviation(Across) | ±2°C | |
| Hot Air Flow | Approx 50 CFM | |
| Environmental Heal Energy | ≤90 J | |
| Noise Level | ≤60db | |
| Production Data | Board Recipes, SPS Data, Alarm & Fault History | |
| Process Width | 50-350mm | |
| Process Height | 750mm±30mm | |
| Conveyor Speed | 0-1800mm/min | |
| Conveyor Inclination | 4°-7° | |
| Product Clearance | Reference To Finger Grooves: TopsSide≥80mm, Underneath≥15mm | |
| Fluxer | , and a second s | , |
| Spray Head Driving | Pneumatic Cylinder | Step Motor Driving |
| Spray Height | 50-80mm | |
| Molecular Size | 20-40 microns | |
| Nozzle Diameter | 1.3mm | |
| Flux Capacity | 20 liters | |
| FLUX Refill | Automatic | |
| Conveyor | 7.0 | |
| Conveyor Direction | Left→Right or Right→Left | |
| Fixed Rail | Front Fixed or Rear Fixed | |
| Conveyor Consumption | 220Vac 90W | |

| Model | ZKS-3A | ZKS-3B |
|--------------------------|---|--------------|
| Conveyor Board Support | Finger Type, Double V-Groove Titanium Fingers | |
| Center Board Support | Wire Type Center Board Support | |
| Process Width Adjustment | Manual Width Adjustment | |
| Pre-heaters | | |
| Pre-heat Consumption | 220vac 4.5Kw×3 | 220vac 4Kw×4 |
| Heat Compensation(IR) | 220vac 125W 1Kw | |
| Heat Up Style | Hot Air Convection~50CFM | |
| Motors Consumption | 220vac 125W 2800rpm | |
| Solder Pot | | |
| Heater Consumption | 220vac 1.2Kw×10 | |
| Pot Capacity | 400Kg | 450Kg |
| Pot Material | Titanium, Purity 99.405%, Cast Iron W/Ceramic Coating | |
| Wave Height | 0-12mm | |
| Wave Nozzle Displacement | Between Chip & Lambda 50mm | |
| Lambda Wave Displacement | 40-80mm | |
| Wave Motors Rotation | 1450rpm | |
| Pot Rolling In/Out | Manual, Motorized or Computer Controlled (optional) | |
| Dross Amount | 0.19-0.21kg/hr | |
| Cooling | | |
| Cooling Style | Natural Air Cooled (Standard) External 3hp Gas Chiller (Optional) | |
| Others Features | | |
| Breakdown Protection | Overload, Overtemp & Missing phase Protection, Board Jam Alert | |
| Fault Alert | Buzzer Alarm, Monitor Display & Light Tower | |
| Flux Management Unit | None (Standard) Circulated Filtration (Optional) | |
| Nitrogen Consumption | N2Consumption (<500ppm):≤20mr3/hr | |
| Nitrogen Features | Oxygen Analyzer & Nitrogen Flow Meters (optional) | |
| Profiling System | 3 Channel Profiling System With Analytical Software | |
| Standby Power Supply | 1000w,15-20 min | |