

# *Alpha 1 Technologies*

## Series 3A and Series 3B Wave Solder



### Machine Highlights

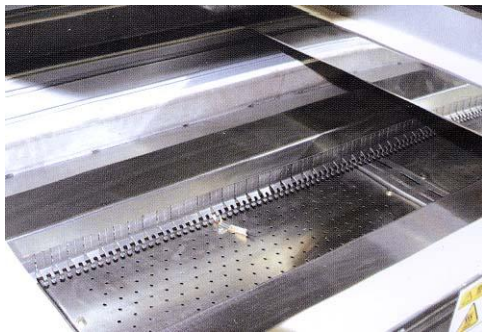
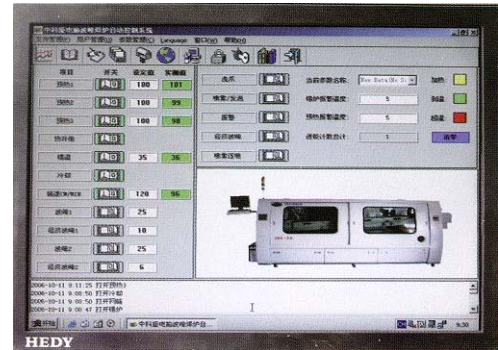
- Affordable pricing.
- Redesigned ceramic coated cast iron solder pot 300 kg capacity for lower startup cost
- Lambda wave is adjustable externally reducing the need to remove the pot to make adjustments
- Windows 7 Platform user friendly GUI
- PLC + Commercial computer controls, excellent reliability
- 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



Redesigned solder pot reduces its size to 300 kg capacity.

Externally adjustable Lambda Wave reduces the need to remove the solder pot to make minor adjustments.

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
<b>General Specifications</b>		
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/cm <sup>2</sup>
Power Requirement	3Phase 5 Cables 380Vac 50/60Hz	3Phase 5 Cables 380Vac 50/60 Hz
Startup Consumption	≤20Kw	≤21.5Kw
General Consumption	≤6Kw	≤6Kw
Heating up time	Pre-Heat: Approximately*15min 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: TopSide≥80mm, Underneath≥15mm	
<b>Fluxer</b>		
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	
<b>Conveyor</b>		
Conveyor Direction	Left→Right or Right→Left	

Fixed Rail	Front Fixed or Rear Fixed	
Conveyor Consumption	220Vac 90W	
<b>Model</b>	<b>ZKS-3A</b>	<b>ZKS-3B</b>
Conveyor Board Support	Finger Type, Double V-Groove Titanium Fingers	
Center Board Support	Wire Type Center Board Support	
Process Width Adjustment	Manual Width Adjustment	
<b>Pre-heaters</b>		
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	
<b>Solder Pot</b>		
Heater Consumption	220vac 1.2Kw×10	
Pot Capacity	300Kg	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	
<b>Cooling</b>		
Cooling Style	Natural Air Cooled (Standard) External 3hp Gas Chiller (Optional)	
<b>Others Features</b>		
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	