Through-Hole Selective Soldering for Thermally Challenging/Lead-Free Assemblies

FLEXIBLE PREHEAT AREA FOR EXTRA LARGE BOARDS UP TO 20" X 20"





PCBRM Systems

System 5.2 and System 5.2 DSP

Simple, Reliable Procedure

- Operator loads the board and slides it into the preheater. An audible tone indicates when preheat temperature is reached.
- The board slides back to the solder module to a set position. The module is activated and the dwell time (5-10 seconds) is automatically controlled.

Reflow Process Provides Many Advantages

- Most components can be soldered/removed in 5-10 seconds.
- High thermal mass equates to low operating temperatures.
- No scraping pads or reheating incomplete desoldered joints.

Preheat Benefits

- Minimizes heat absorption to component and assembly (minimizes time the process heat is applied).
- DSP (Dual Slide Preheater) allows 12" x 18" movable preheat area to accommodate boards up to 20" x 20".
- Flux activation.
- Eliminates operator handling of preheated PCB.
- Reduction of the thermal gradient, minimizing PCB warpage.
- Establishes the same starting condition.

Reliable Solder Pump and Pot

- Integral cast 2500 watt pot with 5 year warranty.
- Cast iron impellar pump, high temperature bearings and belt.

Precise Operating Control

- <u>Temperature:</u> Closed loop control of set temperature. System can be set to 615°F (325°C).
- <u>Solder Wave Flow Rate:</u> Adjustable solder flow to control wave height for any tooling configuration. Three stage settings for enhanced process control.
- <u>Solder Wave Contact:</u> Cycle duration control sets time solder contacts board.

Robust Construction

- Cast framework provides for continuous industrial usage in demanding environments robust features insure long life and easy operating process.
- Alignment System insures board is parallel to solder wave.
- X, Y, Z Board Carrier provides large PCB holding with precision rail movement and positioning.

Application Specific Tooling Provides the Most Efficient Process Solution for any Assembly





For double-sided boards, solder flow is directed away from bottom-side components.

Options







Fume Extraction Manifolds

Air Cleaning System (#APS)

(#3005.02.040) - Connects to central exhaust or fume extraction system. Solder fumes and flux vapors are removed for a safer environment.

Fume Extraction Unit

(#1020.01.105) - High suction force of 25" WC, three-stage filtration, HEPA efficiency of 99% at 0.3 micron. 185 cfm capacity, quiet operation. Connects to 2" and 2.5" diameter hoses. Separate literature available.



Extension Assembly (#3006.01.010 set of 4) (#3006.01.040 single) Used when component is near or against the carrier rails. Positions the board 0.7" away from rails.

shipment.

prove your productivity.

For edge connectors, solder flows away from the board.



Flow wells match the lead pattern and determine the size, shape and direction of solder flow. Air-Vac maintains an assortment of standard flow wells and cleaning hoods.

The success of reflow soldering and rework is related to the flow well design. Air-Vac's approach is to take responsibility for the process by receiving the assembly, discussing the application, quoting the flow well and developing a proven process prior to

Send your board to us for quick response, to simplify your process and to im-

Flow wells can be made up to 15" long and have multiple process sites.

The solder flow can be directed inward, protecting components near the lead pattern.



The solder flow can be directed to large select areas for multiple soldering.



Flow Well Heater Control

Module (#ST350) - Independent power source maintains uniform heat on larger flow wells.

Technical Data

- Physical Dimensions: 76"W x 33"D x 28"H
- X/Y Board Carrier Size: 22"W x 24"D (standard)
- Maximum Board Size: 20" x 20" (with Dual Slide Preheater and 12" x 18" preheat surface).
- Solder Capacity: 35 lbs.
- Total Weight with Solder: 230 lbs.
- Electrical: 45 amps @ 220V, 50/60Hz, 10000 watts
- Compressed Air: 60-80 psi, clean moisture free



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