

Through-Hole Selective Soldering of Thermally Challenging Assemblies

FLEXIBLE PREHEAT AREA FOR EXTRA LARGE BOARDS



Simple, Reliable Procedure

- Operator loads board and slides into preheater.
- Audible tone indicates preheat temp is reached.
- Board slides back to a set module position.
Module activates, dwell time is auto controlled.

Reflow Process Provides Many Advantages

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

Preheat Benefits

- Dual Slide Preheater (DSP), 12" x 18" movable preheat area for boards up to 20" x 20".
- Minimizes heat absorption to component/assembly.
- Eliminates operator handling of preheated PCB.
- Reduces PCB warpage.

Reliable Solder Pot and Pump

- 2500 watt solder pot.
- Cast iron pump, high temp bearings and belt.

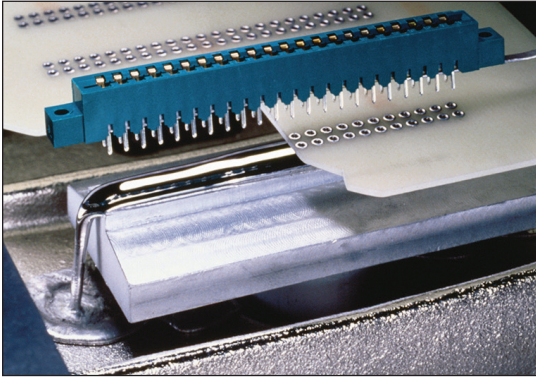
Precise Operating Control

- Closed loop control of set temperature. System can be set to 615°F (325°C).
- Adjustable solder flow to control wave height for any tooling configuration.
- Cycle duration sets time solder contacts the board.

Robust Construction

- Cast framework for continuous, industrial, long-life usage.
- Alignment System insures board is parallel to solder wave.
- Board Carrier provides large PCB holding with precision rail movement and positioning.

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



Flow Wells match the component lead pattern and determine the size, shape and direction of the solder flow. Custom Flow Wells can be made up to 15" long and have multiple process sites.

The success of reflow soldering and rework is related to the Flow Well design. Air-Vac's approach for the process is to receive the assembly, discuss the application, quote the Flow Well and then develop a proven process prior to shipment.

Send your board to us for a quick response, to simplify your process and to improve your productivity.



Options

Air Blow Off System (#APS)

Aligns component over solder wave. After component removal, low pressure air is applied to the lead pattern, forcing the molten solder from the barrels.

Fume Extraction Manifolds (#3005.02.040)

Removes solder fumes and flux vapors. Connects to central exhaust or fume extraction system.

Fume Extraction Unit (#1020.01.105) High suction force and HEPA efficiency of 99% at 0.3 micron.

Carrier Arm Extension Assembly

(#3006.01.010 set of 4) (#3006.01.040 single)

Used when component is near or against the carrier rails. Positions board away from rails.

Flow Well Heater Control Module (#ST350)

Independent power source maintains uniform heat on larger flow wells.

Nitrogen Inerting of Solder Pot (#4004.03.040)

Tooling

Titanium Flow Well Set (#FWLSTD)

23 standard component size flow wells.

Cleaning Hood Set (#CHSTD)

23 standard component size cleaning hoods.

Contact Air-Vac if Custom Flow Wells are required.

Technical Data

- **Operating 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

Visit air-vac-eng.com for more detailed information and video demonstrations.



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