



# HVA 120



## Conceptronic HVC [High Velocity Convection]

Series forced convection ovens are designed for SMT mass reflow soldering, Sn-Pb as well as Pb-Free alloys including epoxy, adhesive, and encapsulant curing. Tight uniformity and repeatable computerized control guarantees good solder joints today and many years to come.

High convection rates mean minimal changes needed to process a wide range of PCB types. Higher setpoints and the longest heated tunnel in its class means lead-free ready without sacrificing throughput.

**Conceptronic. We're hotter than ever.**

**More heated length means better profiles.**

**Small Holes means greater convection rates without moving components.**

**Integrated Powered Exhaust And Simple Flux Management**

- HV<sup>HT</sup> easily direct connects to factory exhaust for rapid installation and line re-configuration.
- HV<sup>HT</sup> collects all flux prior to factory exhaust for reduced building maintenance.

**Aggressive Cooling**

- HV<sup>HT</sup> minimizes liquidus time for higher Pb-Free profiles with three cooling zones. (Two top, one bottom)
- HV<sup>HT</sup> conserves floor space and lowers operating costs with no compressed air or cooling water required.
- HV<sup>HT</sup> optimizes solder process between intermetallic growth and thermal stresses for maximum solder joint reliability with accelerated cooling rates.

The Conceptronic HVC<sup>HT</sup> ovens have the same thermal performance that made Conceptronic a preferred oven by engineers for Networking, Automotive, Telecommunications, Medical, Military, and Semiconductor industries. The HVC<sup>HT</sup> ovens can be implemented without retraining operators, technicians or investing in a whole new spares stocking program.

With exhaust [flux removal before cooling, the HVA<sup>HT</sup> 120 oven requires very little maintenance. The low cost of ownership and initial value pricing provide a rapid return on investment.

**Intuitive Software**

- HV<sup>HT</sup> Software offers thermal repeatability from oven to oven with calibrated offsets for worldwide "exact copy" processes.
- HV<sup>HT</sup> software now includes SPC data logging.
- HV<sup>HT</sup> offers individual blower speed control from 20-100% as an option.

**Improved Safety, Easier Access And Lower Maintenance**

- HV<sup>HT</sup> requires two-hand to open and close the bonnet for safety.
- HV<sup>HT</sup>'s modular design with common parts requires less inventory of spares.

**Energy Efficient**

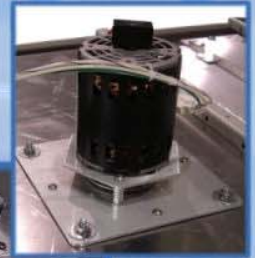
- HV<sup>HT</sup>'s energy saving "soft-start" minimizes current draw during start-up.
- HV<sup>HT</sup>'s efficient insulation reduces power consumption, operating costs, and facilities air conditioning requirements.

**HV<sup>HT</sup> More production. Less downtime.**



## Modular Design

Modular design- low maintenance costs: a single type blower for heating, cooling, water cooling, and exhaust.



### HVA<sup>HT</sup> 120 Standard Features

<b>Heated Length</b>	120 Inches (2670 mm)
<b>Heating Zones</b>	16 Closed Loop Heating Zones, 8 Top, 8 Bottom
<b>Setpoint</b>	Maximum Setpoint is 300°C
<b>Linear Heat Transfer</b>	High Ratio of Impingement Flow □ Heated length ratio = 98%
<b>Cooling Zones</b>	27 Inches of cooling, 2 Zones upper, 1 zone lower.
<b>Machine Size</b>	204. □ Inch (□19 □ mm) Long, □6.1 Inch (1420 mm) Depth, □ □ Inch (1400 mm), Height
<b>Processes</b>	Sn-Pb Reflow, Pb-Free Reflow, Solder Sphere Attach, Conductive Epoxy, Encapsulant Curing
<b>Process Control</b>	Computer control, with unlimited recipe storage, and multiple password levels.
<b>Conveyor Adjust</b>	Motorized is standard.
<b>Powered Exhaust</b>	Direct Connect, Powered Exhaust
<b>Power Fail Protection</b>	Battery backup system for 10 – 20 minutes of continued controlled conveyor operation during a power loss is standard.
<b>Industrial Controller</b>	Industrial Controller independent of PC controls oven. Modern Windows XP Pro via. Ethernet user interface
<b>On-load table</b>	12" (300 mm) on load table
<b>Off-load table</b>	12" (300 mm) on load table
<b>Over temperature Protection</b>	Redundant over temperature protection is included.
<b>Main power disconnect</b>	Lockable, machine mounted, main disconnect is standard.
<b>Clamshell Lift</b>	Two Hand Activated Safety Bonnet Lift with motion alarm.
<b>Keyed Access</b>	Safety interlock keys are required to access electrical panels.

### HVA<sup>HT</sup> 120 Options

<b>Blower Speed Control</b>	□ Independent Blower Speed Controls for Variable flow from 20-100%
<b>Nitrogen Ready</b>	Machine heater cavity, blowers, and cooling section is prepared for Field- Retrofittable nitrogen operation.
<b>High Setpoint Temperatures</b>	Available with maximum temperatures up to 400 C.
<b>Board Counter □ SMEMA Interface</b>	Link to upstream and downstream machines to communicate line readiness. Includes board count sensor.
<b>Multiple Lane Conveyor</b>	Choose 2, 3, 4, or even more rail systems with independent width control.
<b>Balance Weave Belt</b>	For semiconductor processing.
<b>Under board Support</b>	Tensioned cable systems with x, y adjust, along the full length of the oven.
<b>Custom Configurations</b>	HV <sup>HT</sup> "Rigid Chassis" frame allows for easily customizable lengths for additional cooling or selective soldering modules.



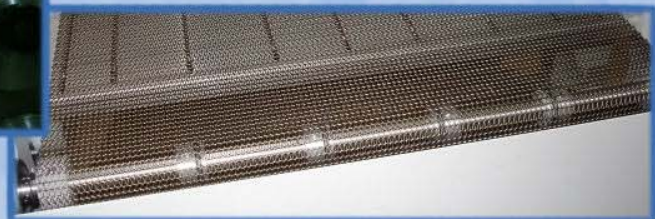
Configured for very wide boards.

### Many Conveyor Options



Fully Retractable Cable Under Board Support.

Balance Weave Belt for Semiconductor Processing.



Simple, inexpensive flux management.

### Flux Management



-----**Contact Information**-----  
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-----**Local Distribution**-----