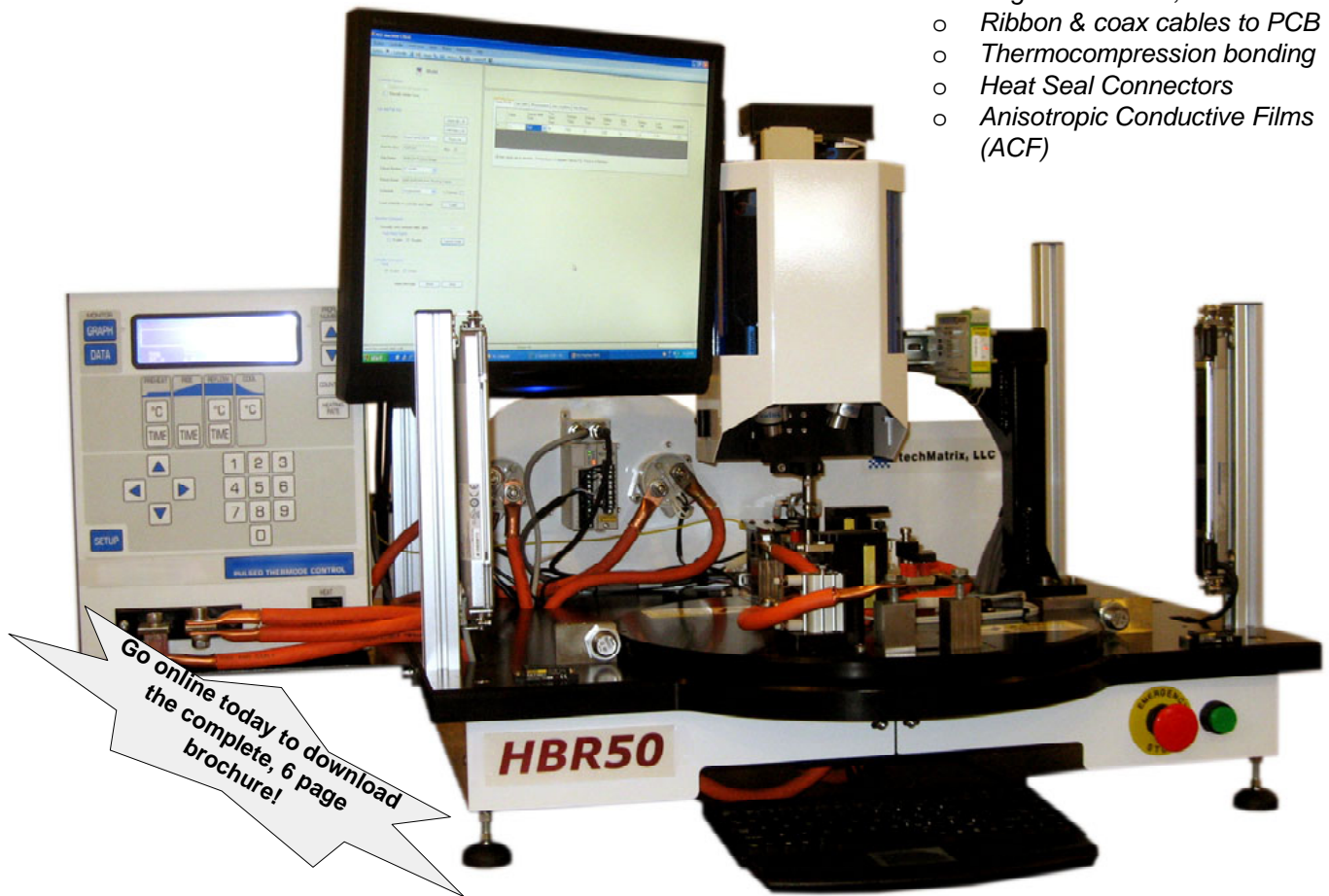


HBR50 Series Hot Bar Solder, Heat Seal Bonding and Staking Machine

Built on the proven success of the RSX50 platform, the HBR series is designed for low to medium volume attachment of electrical devices to printed circuit boards.

TYPICAL APPLICATIONS:

- Edge connectors, flex circuits
- Ribbon & coax cables to PCB
- Thermocompression bonding
- Heat Seal Connectors
- Anisotropic Conductive Films (ACF)



HBR50 Shown with hood removed

- Semi-automatic hot bar (reflow) solder, TAB, and heat staking platform
 - Gantry robot automatically moves thermode (i.e. hot bar) to multiple positions on the PCB
 - Automatic adjustment of thermode pressure
 - Ideal platform for attaching exposed, single sided, or open windowed flex leads
 - Reflow multiple PCB and flex leads while operator loads/unloads machine
 - Dramatically increase throughput compared to basic system
 - Maximize the utilization of a single thermode temperature controller.
 - Flexible and Fully Configurable Platform
 - HBR50 available with any combination of X, Y, Z, or theta axes
 - To prevent thermode contamination from flux, use an optional polyimide (Kapton) tape & reel
 - For ACF bonding, a tape cutter and feeder can be added
 - Manage thousands of temperature schedules with WeldWorks Software Suite
 - Easily manage all your PCB's part numbers, fixtures, and temperature schedules
 - Maintain process control with integrated SPC charts, histograms, and box-plot charts
 - Analyze reflow temperature data and print reports and graphs on any PC with a browser
- Features
- Benefits

HBR50 Specifications:

Hardware

- Precision servo controlled X, Y, Z & theta gantry robot with a work envelope of 400mm x 200mm x 100mm respectively and 12um positional repeatability – configured with 1, 2, 3, or 4 axes for your application.
- Automated thermode (hot bar) force control (up to 300N) via air cylinder and electro-pneumatic regulator
- Thermode displacement measured with optical linear probe with ±1um resolution (optional)
- Ergonomic load/unload station and 425mm diameter index table holds a variety of PCB alignment modules
- Core 2 Duo computer equipped with a minimum of 1 GB RAM, 80 GB hard drive, CD-RW drive, 2 USB ports, 17" LCD monitor, 500 VA UPS and fast Ethernet card.
- Category 2 safety light curtain and controller
- Optional analog color CMOS camera monitor and macro zoom lens for accurate setup of thermode positions
- Optional polyimide (Kapton) tape and reel interposer using our simple pneumatic freewheel drive system is available to extend the life of your thermodes. System available for ACF cutting and feeding too.

Software

- Output data stored on Microsoft SQL Server 2005 Express relational database
- Windows® XP with WeldWorks™ Software Suite to control thermode (hot bar), change and adjust heat recipes, perform motion, control all I/O, and view data on-line (via a web browser)
- Optional vision system to locate part features, position thermode, and take calibrated measurements
- Optional manufacturing execution system integration and/or custom reports

HBR Series Feature Matrix	HBR50	HBR100
WeldWorks™ Software Suite*		
Intuitive Windows based software for easy machine operation	●	●
Complete process control – Six Sigma Quality	●	●
Electronic records, data storage, web reports and statistical analysis	●	●
HBR Series™ Hardware		
Machine configuration	tabletop	frame
Ideal for flex circuit, heat seal, and heat stake electronic applications	●	●
Integrated PID temperature controller	●	●
Flexible and reconfigurable via fixtures, jigs, etc.	●	●
Precise and repeatable thermode (i.e. hot bar) positioning	X-Y-Z gantry	X-Y-Z gantry
Vision assisted thermode to fine pitch lead alignment (option)	◐	●
ACF dispense and cut or Kapton tape & reel interposer (option)	○	◐
Production volume	Low-Medium	Medium-High
Integrate into continuous PCB manufacturing line	○	●

○ Not applicable ◐ Partially fulfilled feature ● Fully available feature

*The WeldWorks Software Suite can be purchased and run on stand-alone temperature controllers that do not use HBR series hardware. Please contact techMatrix LLC sales for more details.



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