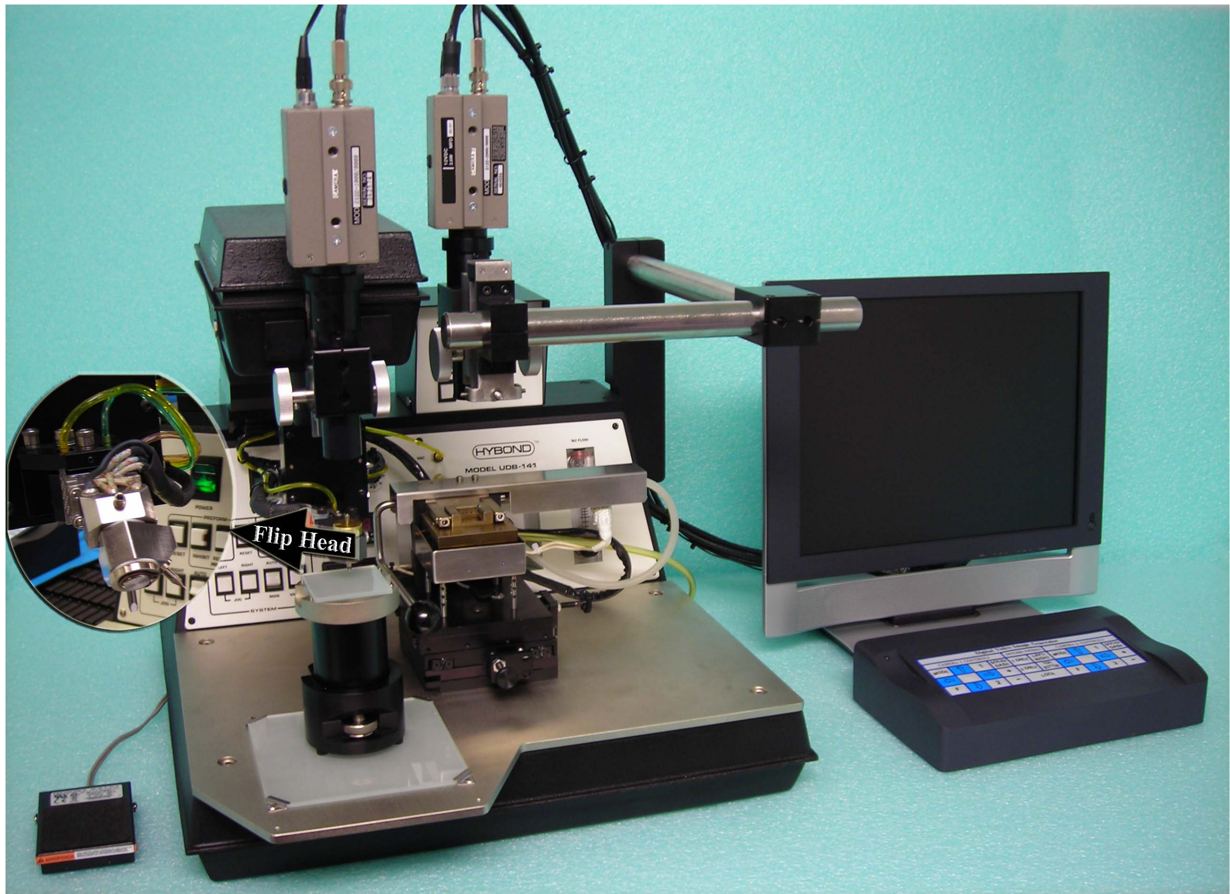
HYBOND

MODEL UDB-141

EUTECTIC/THERMOPLASTIC DIE BONDER



STANDARD FEATURES:

- Heated nitrogen cover gas.
- Color CCTV system (as shown).
- Separate preform pick up tool and cycle.
- Manual and semi-automatic operation.
- Adjustable scrub time and amplitude.
- Dual axis scrub with X or Y lock-out
- Manual X-Y alignment stage.
- Waffle pack/loose die pick up pedestal.
- Pitch and roll adjustment for bond head.
- Independent head and stage temperature control.
- Bonds flip chips.
- Programmable with simple interface.

The UDB-141 is a semi-automatic die bonder for eutectic, thermoplastic, and other die attach media where heat is required at the die pick up tool and/or the package work stage. Precise die placement, quick device change over, and versatility are integral with the design. The UDB-141 is rugged enough for continuous production and ideal for small production runs and laboratory applications. Die pick up and placement are facilitated with the aid of dual CCTV cameras and a split screen monitor which incorporates a die and package targeting system. A die ejector system, a 4:1 X-Y manipulator for package location, and/or lead-frame indexer can be added. The UDB-141 is modular and easily adapted to various modifications. Custom packages and die can be accommodated by designing in suitable fixtures to fit the application.

Partial List of Available Options:

- Die ejector systems.
- Heated N2 cover gas package enclosure.
- Color CCTV system.
- Zoom stereo microscope with swivel base.
- Dual fiber optic illumination system.
- Dual axis scrub bond head.
- Lead frame indexing systems.
- Semi-automatic indexing systems.
- Remote pendant controls.
- Variable time ramped pulse heat system.
- Laser diode alignment search height pause.
- Customization based on specific application.

Model UDB-141 Specifications:

➢ Scrub System:	Dual axis: Motorized.
➢ Scrub Amplitude:	0 or 5 - 25 mils (125 – 625um). Same for X and Y in dual axis.
➢ Bond (Scrub) Time Range:	0 - 15 seconds.
➢ Dwell Time (Before Scrubbing):	0 - 15 seconds.
➢ Bonding Force Range:	15 - 130gr standard.
➢ Temperature Range:	Stage: Ambient to 500 Deg. C. Collet: Ambient to 250 Deg C.
➢ Bondable Die Size Range:	6x6 mils (152x152um) to 750x750mils (19x19mm) standard.
➢ Placement Accuracy:	+/-1mil (+/-25,4um). Less when adding microscope option.
➢ Bondable Preform Alloys:	AuSn, AuSi, AuGe, and others.
➢ Bond Head Movement:	Motorized, rotational, with fixed pickup and placement points.
➢ Bond Actuation:	By opto-sensor at fixed height. Cycle activated by footswitch or by position in sequence.
➢ Z Travel / Vertical Bonding Window:	0.5in. (12,7mm) / 0.125 to 0.500 in (3,18 to 12,7mm).
➢ Placement Table Motion:	Manual, with thumbscrews, standard.
➢ Input Power Requirements:	120VAC/60Hz @ 10A or 240VAC/50Hz @ 5A (IEC male).
➢ Minimum Bench Space Required:	X & Z = 18in. (45cm) Y = 22in. (56cm), without monitor.
➢ Facilities Required (3x1/8" male nipple):	Vac: 20-26in.Hg, Cover Gas: 60psi max (95/5 N_2/H_2 typ), Air: 60-80psi dry air.
➢ Unit Weight/Shipping Weight:	75lbs (34Kg)/150lbs (68Kg). Shipping weight will vary.
➢ Approximate Units Per Hour (UPH):	90- 240 depending on options, settings and mode of operation.

For more information contact us:

330 State Place, Escondido, CA. 92029, USA
Tel. 760-746-7105 Fax. 760-746-1408
e-mail: mailus@hybond.com or visit us online at: www.hybond.com