



## EUTECTIC DIE BONDER

MODEL NUMBER 135



The Model 135 Eutectic Die Attacher is a machine for bonding dice to packages or substrates. The bonding is done on a heat column that heats the package or substrate and a heated pick-up tip, for the dice. To enable the operator to concentrate on placement of the dice, locating motions are mechanized and some operations are performed automatically in sequence.

The major components of the machine are:

- A precise X-Y manipulation platform
- A mechanized left and right moving slide mounted on the platform
- A pedestal with dice tray and heat column mounted on a moving slide
- A scrub motion mechanism (Tip forward and back movement)
- A precise tip lowering and raising mechanism
- Temperature and pressure controls for above

### DESCRIPTION AND SPECIFICATIONS

#### **CHIP CARRIERS**

Chip carriers or mirrored die dish to hold dice

#### **HEAT COLUMN**

0 to 600c degrees temperature controller with K thermocouple

#### **TIPS**

Five position indented manually set turret with 5 positions for heated tips is furnished. The turret is mounted on a balanced beam, manually controlled and adjustable for tip contact pressure. Vacuum to the tip is automatically actuated on lowering of the tip for die pick-up. Manual actuation is also available. Tips are heated and temperature is controlled by a variable transformer. A mechanical forward and back scrubbing motion of 0 to .050 amplitude and 20 to 200 cycles per second is provided and is automatically initiated on placing the die on the package. The tip vacuum is also deactivated on placing the die on the package.

**ALIGNMENT OF DIE**

For alignment of the die, for pick up and placing, a reducing ratio X-Y manipulator moves a platform on which the slide, chip carrier and heat column is mounted.

**RECIPROCATING SLIDE**

A left-right moving slide which is mounted on the platform and holds the chip carrier and the heat column is mechanically activated and manually activated and manually controlled. The tip remains stationary while the stage reciprocates between pick-up and placement of the die.

**SERVICES**

Air Pressure: 50 PSI minimum  
Vacuum: 20 inches Hg minimum  
10 PSI minimum (if required)  
120 V, 60 Hz, 5 A

**DIMENSIONS**

Width: 28 inches  
Depth: 24 inches  
Height: 15 inches

**MACHINE WEIGHT**

80 pounds

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