

PRECISION DIE BONDERS

Models
UH410
UH412
UH420

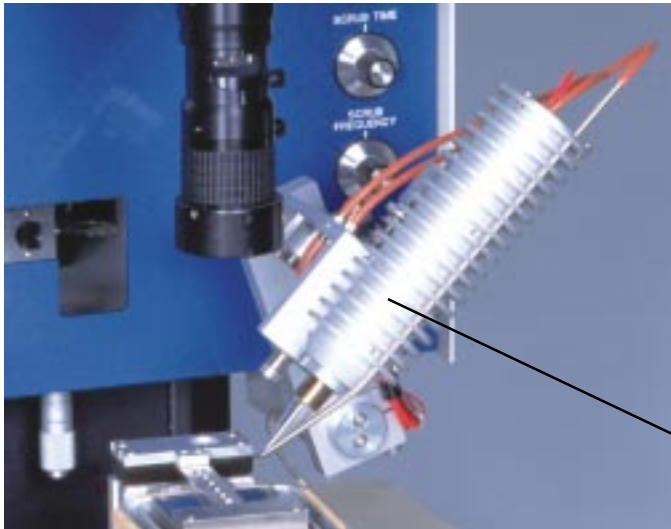


Ultron Systems' series of Precision Die Bonders feature a unique dual camera system on a single split screen monitor with independent monitoring and accurate positioning of both the pickup and bonding stages via a X/Y-Theta electronic joystick. The operator can align either the subsequent die or bond pad, while the bonding arm is completing its process. They offer a high degree of repeatability with a consistent placement accuracy of

0.001" or less. Ultron Systems' bonders were designed with an emphasis on flexibility, while maintaining a high degree of accuracy and control. Whether the die are presented loosely on a mirror or waffle pack, or uniformly presented on expander rings/grip rings/wafer frames, these systems can die bond to various types of packages and substrates. A complete line of options to accommodate almost any die attach application is available.

ULTRON SYSTEMS'

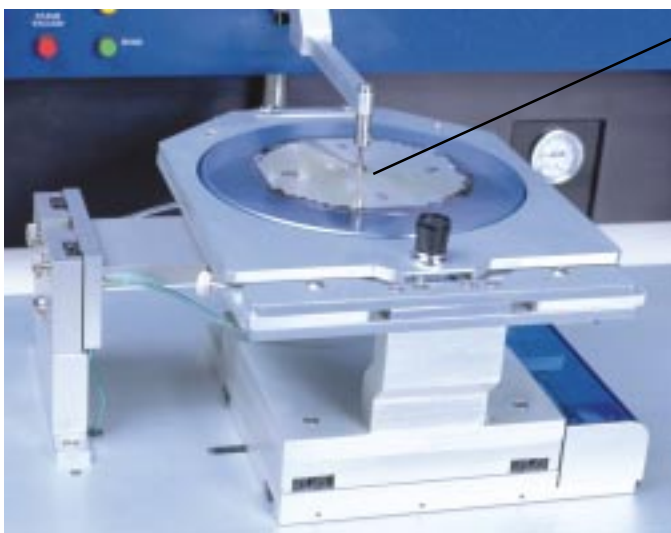
PRECISION D



Hot Gas Jet Assembly for Eutectic Die Attach



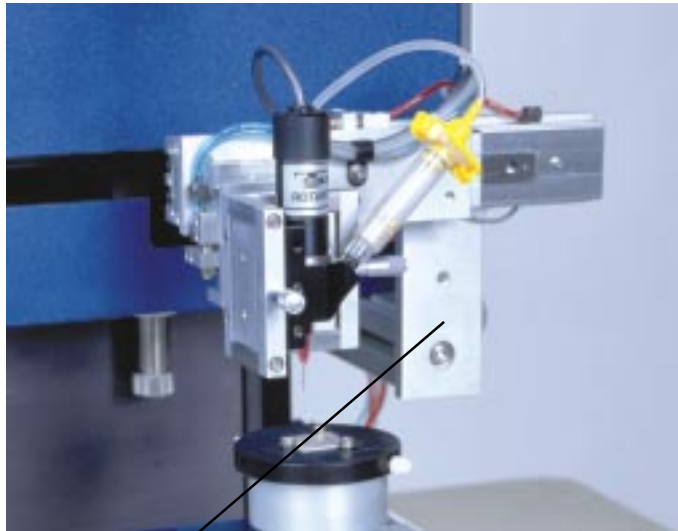
Detail of Bond Head Assembly
with Preform Pickup Tool



*Easy operation without
performance*



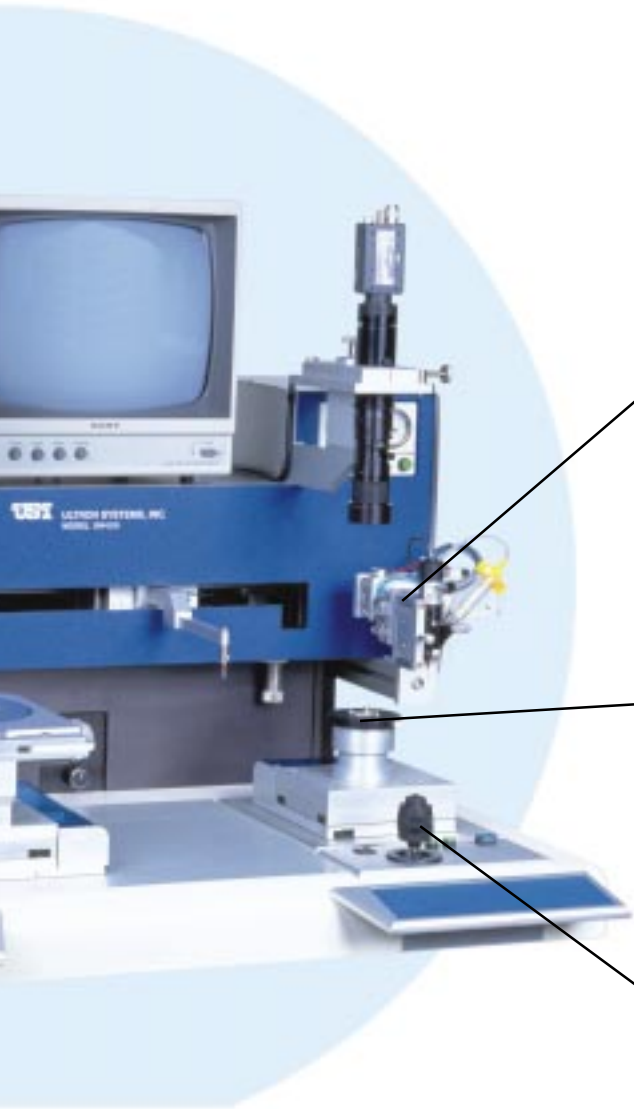
DIE BONDERERS



Epoxy Dispense System



Motorized Workstage with
Pneumatic Package Holder



Model UH420 shown.

**Without sacrificing features,
or flexibility.**



X/Y-Theta Electronic Joystick

Model UH410 Semiautomatic Eutectic Die Bonder

The Model UH410 is the base model of the Eutectic Die Bonder series. Yet it has all of the control and features to assure die placement accuracy and repeatability, in addition to ease of use with almost all operator variables eliminated. The operator is able to view both the pickup and bonding stages on the same monitor, while aligning each stage independently via one-handed operation of the electronic joystick. All other parameters, including bonding force, scrub time, scrub frequency, and scrub amplitude, are controlled by the UH410 to eliminate variation in operator technique, common to manual bonders. The Die Pickup System gently accommodates even fragile die, including those made of Gallium Arsenide and Indium Phosphide. The Die Bonding System also gently handles die during eutectic attach. The heated workstages are designed specifically for each package to assure a secure bonding site.

Model UH412 Semiautomatic Eutectic Die Bonder for Preform Applications

The Model UH412 has all of the features of the Model UH410, but also accommodates preform with its indexing Pickup Stage and Rotating Bond Head. After retrieving a die, the Pickup Stage will automatically index to the Preform Pickup Tray as the Bond Head rotates to bring the Preform Pickup Tool into position. Preform can then be aligned using the same single split-screen monitor via the same joystick.

In addition, the Model UH412 has a Digital Bond Load Indicator which provides a means of determining the load being exerted on the die in real time. Stepless bond load adjustments are easily made via a micrometer adjuster on the bond head subassembly.

Model UH420 Semiautomatic Epoxy Die Bonder

Similar features as the Models UH410 and UH412, however, for epoxy die attach applications.

The Model UH420 Epoxy Dispense System features a self-contained, rotary microvalve displacement pump that is capable of depositing shots down to 0.010" in diameter. The system is based upon a rotary feed screw mechanism that assures that the epoxy is continuously present at the inlet of the feed screw, whose controlled rotation moves the epoxy from the feed point to the dispense tip. The epoxy dispense system has a low operating air pressure to reduce solder paste separation. The feed screw is DC motor driven and greatly reduces entrapped air problems, resulting in dispense accuracy and repeatability. The dispenser operates automatically, yet can be switched to a manual mode for manually indexed pattern dispense.

SPECIFICATIONS

Height:	21 inches
Width:	36 inches
Depth:	28 inches
Weight:	175 lbs.
Voltage:	115 VAC
	50/60 Hz
	Single Phase
Current:	5.0 Amps
Air	60 psi regulated
N ₂	60 psi regulated
Vacuum:	25 inches Hg

Ultron Systems offers a complete line of adhesive plastic films for wafer/die handling. Please call for additional information and samples.

For additional information, please contact:

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