

HiSOL Bonder

All the technologies you want



HiSOL Bonder
M-90/M-1300/M-400

Desktop Manual FC/Die Bonder M-90

Bonding Accuracy $\pm 2.5\mu\text{m}$



Most suitable for the device packaging of R&D

Full-scaled bonding performance.

But, small foot-print desktop type Flip Chip Bonding

Basic system for new method development.

Application

Rapid
Heater

Low
Oxygen

Ultra
Sonic

Laser
measure

UV
Light

Stamp
Apply

Super Accuracy Placement Bonder M-1300

Bonding Accuracy $\pm 1.0\mu\text{m}$



Loading accuracy $\pm 1\mu\text{m}$ is possible and general purpose type machine.

Using high magnification camera alignment, so no complicate handling and any type of device can be used.

Most suitable for the device packaging of R&D.

This advanced system can be used multipurpose for the optical device or lab which request high accurate packaging.

Application

Rapid
Heater

Low
Oxygen

Ultra
Sonic

Laser
measure

UV
Light

Stamp
Apply

Semi Automatic FC/Die Bonder M-400

Bonding Accuracy $\pm 5.0\mu\text{m}$



Most suitable for small lot product packaging and can be used for all methods such as bond, eutectic, ultrasonic, and thermocompression.

Success on MEMS device, optical device, and big size chip die bonding can be used for chip transfer equipment.

Application

Rapid
Heater

Low
Oxygen

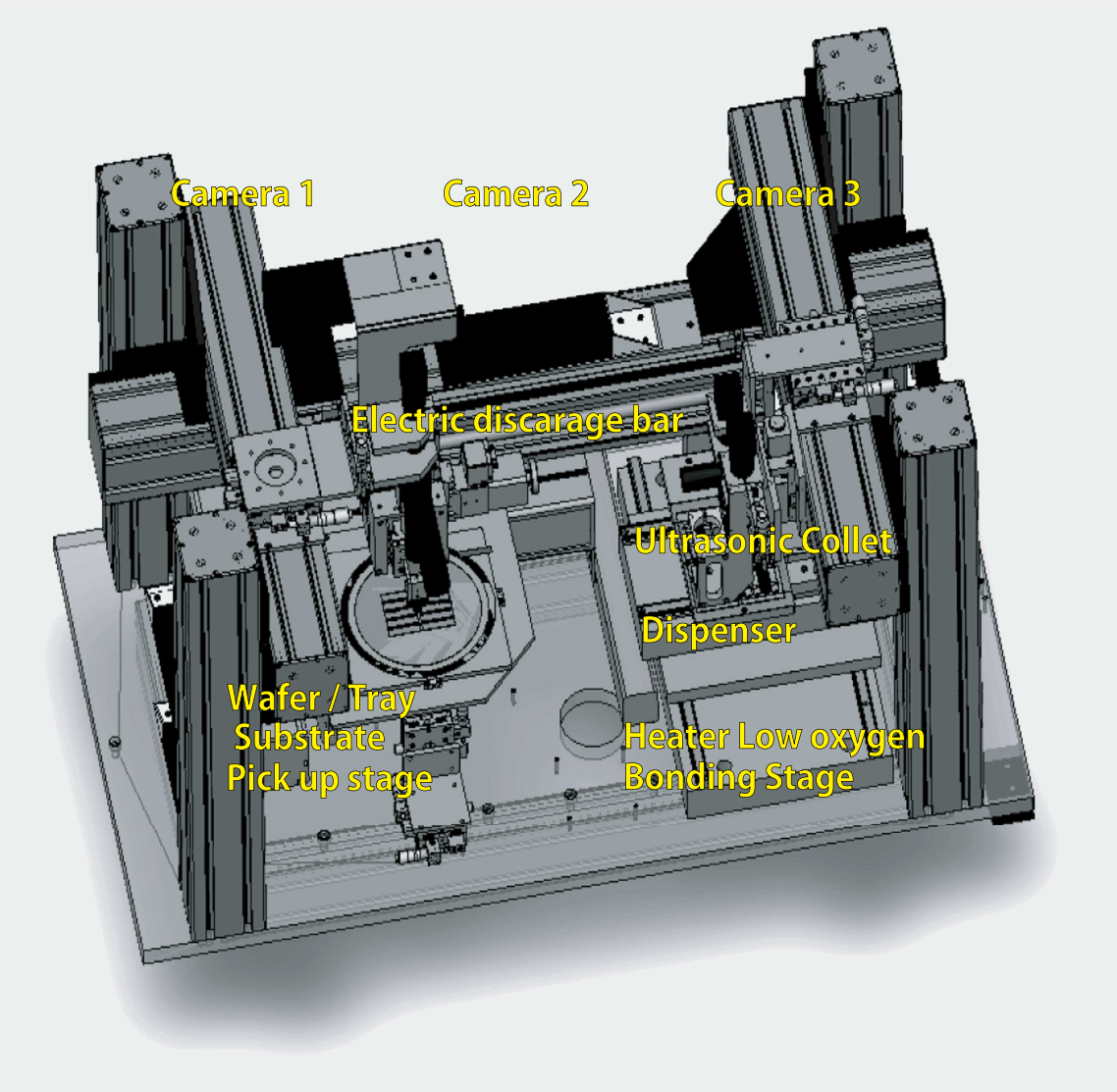
Ultra
Sonic

UV
Light

Stamp
Apply

Probe
Inspection

SM-400 System inside

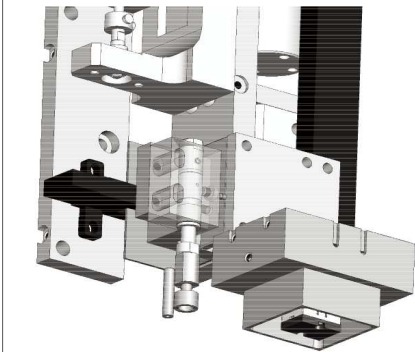


Transfer application

Chip Turn over	2-8-inch Wafer	Gel tray Pick up	Collet changer	Wafer Map Pick	Image recognition
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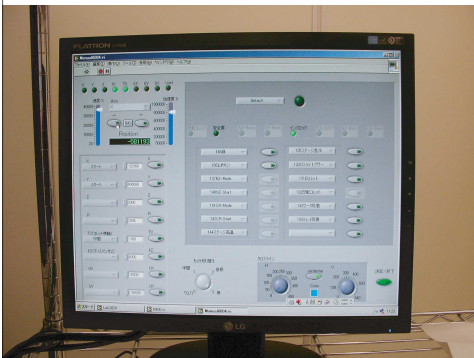
All System standrad function & Option parts

Ultrasonic collet



Bonding stage and pick up collet is custom-made depends on the method and device type.

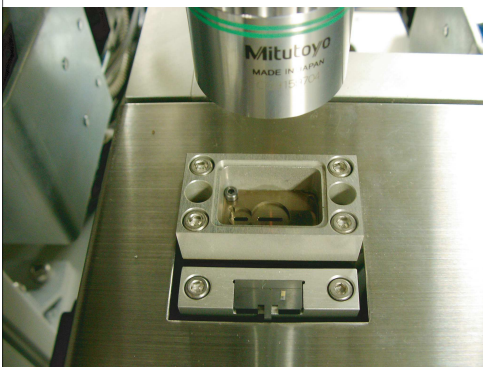
Operation Monitor



All Hisol Bonder can execute the details of control and operation monitoring by PC application or software.

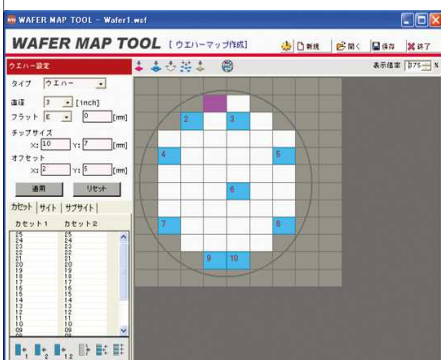
The device pictures after the assembly can be recorded at a time.

Eutectic bonding N2 purfe stage



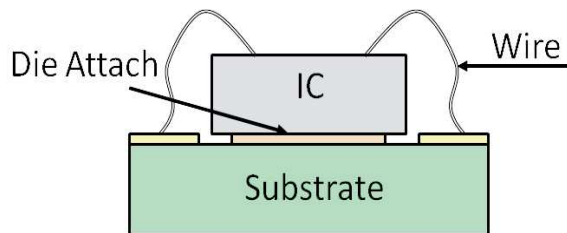
All Hisol bonder can be used for Bonding stage, Pulse heater, low-oxygen concentration, and ultrasonic bonding.

Wafer Map

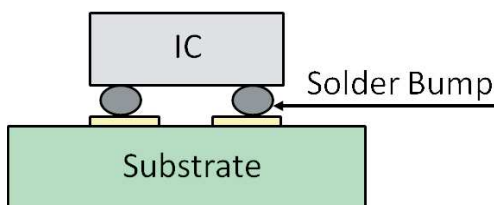


M400 can be used for automatic pick & place from Wafer map. Output CSV file.

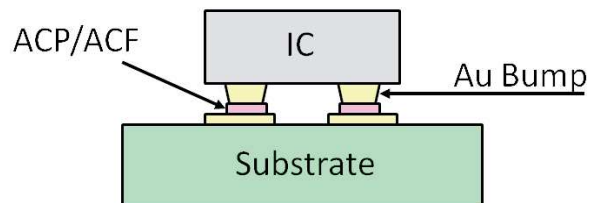
All HiSOL bonder can be used for compatible
Flip Chip and Die Bonding!
Used for all methods bond,eutectic,
Ultrasonic,Thermocompression



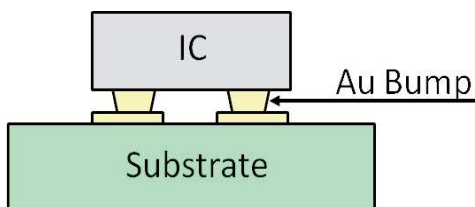
Large Size DWafer-Wafer bond...
Optical parts assembly...
for LED MEMS TSV...



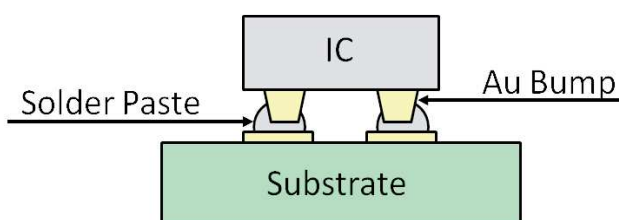
Eutectic Solder bump..
Pb free Solder bump...
for Multiple I/O bumps chip..



Anisotropic contact paste bump...
Anisotropic contact film bump...



Thermocompression Au bump...
Ultrasonic Au bump...



Solder paste Au bump...
Ag nano paste bump...
NCP Paste bump...

Process to product HiSOL Bonder

Meeting with the customer for their process and method after confirm their device.

To consider the budget and function, we offer the best system for the customer.

After we receive the order, we design the machine and consult with the customer for the best solution.

After machine start-up, we do the bonding recipe arrangement with actual device.

HiSOL BONDER SPECIFICATION

MODEL	M-90	M-I300	M-400	
FUNCTION	DIE/FC BONDER	HIGH ACCURACY DIE/FC BONDER	AUTO BONDER	
ALIGNMENT ACCURACY	±5MICRON	±1MICRON	±5MICRON DEPENDS ON CONDITION	NO-LOAD CONDITION
ALIGNMENT METHOD	MANUAL	MANUAL/θAXIS AUTO	AUTO GRAPHICS PROCESS	
ULTRASONIC UNIT	OPTION	OPTION	OPTION	
CONTROL METHOD	PC SOFTWARE	PC SOFTWARE	PC SOFTWARE	
COLLET HEAT	MAX200 DEGREES C	MAX200 DEGREES C	MAX200 DEGREES C	
STAGE HEAT	MAX400 DEGREES C	MAX400 DEGREES C	MAX400 DEGREES C	FOR NORMAL HEATER
STAGE HEAT	PULSE HEATER OK	PULSE HEATER OK	PULSE HEATER OK	PULSE HEATER MAX 400C
COLLET FLATNESS ADJUST	OK	OK	N/A	
STAGE FLATNESS ADJUST	OK	OK	OK	
CHIP INVERSION	N/A	N/A	OK	
DISPENSER	OK	OK	OK	
# OF CAMERA	2	2	2	
LOADING	50-5000g	50-3000g	25-1000g	CUSTOM-ORDER OK
CHIP SIZE	MIN0.25MM ~	MIN0.25MM ~	MIN0.25MM ~	
CYCLE TIME	N/A	N/A	15SEC ~	
MACHINE SIZE	415X265X600MM	1160X760X1600MM	1160X760X1600MM	
POWER USAGE	100V/N2 OR COMPRESSED-AIR	100V/N2 OR COMPRESSED-AIR	100V/N2 OR COMPRESSED-AIR	

It is possible to change the specification without any notice on the products shown on our brochure. For the details, please contact HiSOL Bonder group.



HiSOL, INC 1-17-6 Ueno, Taito-ku, Tokyo, JAPAN 110-0005

■ Sales/Support Center

+81-3-3836-2800 (FAX:+81-3-3836-2266)

HiSOL
Website

<http://www.hisol.jp/>