

ACCURA

Flip-Chip Bonder
100



Education and R&D oriented, High Accuracy Flip-Chip Bonder 0,5 μm

The **ACCURA™100** is a flip-chip bonder that allows $\pm 0.5 \mu\text{m}$ accuracy. Motorized axes guarantee a high repeatability of your process. Its flexibility makes it ideal for developing a wide range of applications.

ACCURA™100 combines high precision, accessibility and cost-effectiveness. It is the perfect equipment for universities and R&D institutes.

Applications

- Micro assembly
- Laser diode, laser bar
- VCSEL, photo diode
- LED
- Flip-chip bonding, die bonding
- Chip-to-chip, chip-to-substrate bonding
- MOEMS, MEMS, MCM packaging...
- 3D packaging
- Nanoimprinting (UV NIL and Hot Embossing)

Highlights

- **Accuracy*** ($\pm 0,5 \mu\text{m}$)
- **Easy to use and very flexible**
- **Quick set-up of new applications**
- **Cost-effective**
- **Small footprint** and compact design
- **High bonding force**

*depending on configuration and application.



User benefits

- Open platform associated to an intuitive interface results in a quick set-up for new applications
- Robust design and closed loop systems guarantee a high repeatability in operations
- It combines on the same platform high precision, low to high force and user-friendly interface for multiple applications and processes

Main bonding processes

- Flip-chip bonding
- Die bonding
- Pick and place
- Thermocompression
- Thermosonic

- UV curing
- Reflow
- Gold, Glod/Tin, Indium, Copper
- Thermal cure adhesives, polymers...

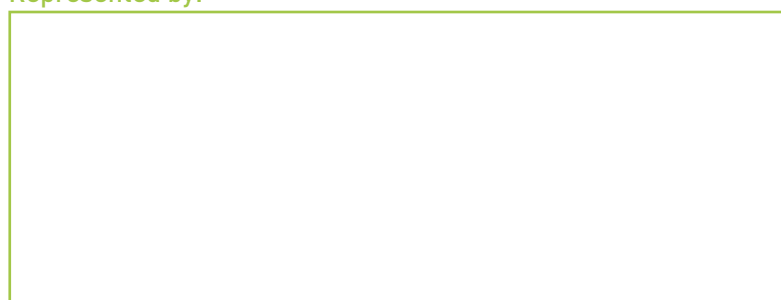
Specifications

Machine	
Footprint	955 x 1110 mm
Height	800 mm
Weight	~450 kg
Component size	
Chip (Upper die)	0,2 x 0,2 - 50 x 50 mm Thickness: 0,03 to 10 mm
Substrate (Lower die)	0,2 x 0,2 - 100 x 100 mm Thickness: 0,03 to 10 mm
Bonding arm	
Accuracy*	± 0,5 µm
Z resolution	0,015 µm
Force*	1 up to 1000 N
Alignment stage	
XY stage	Resolution 0,015 µm
Theta travel	± 5°, resolution 1 µrad

Data, design and specifications depend on individual process conditions and can vary according to equipment configurations. Not all specifications may be valid simultaneously. Illustrations, photos and specifications in this datasheet are not legally binding. Specifications are subject to change without prior notice.

*depending on configuration and application.

Represented by:



Bonding heads	
Room temperature	sq. 50 mm
Heating	sq. 22 or 50 mm, 450°C
Ultrasonic	30 - 150 kHz, 100 W max
UV	80 mW / cm² @ 365 nm
Substrate chuck	
Room temperature	sq. 50 or 100 mm
Heating	sq. 22, 50 or 100 mm, 450°C
Optics	
Digital camera resolution	2 sight cameras 0,37 µm/pixel
Field of view	900 x 700 µm
Automatic alignment	Optional
Options	
Dispenser	Ionisers bar
UV Curing system	Flux or dipping station
Face up station	Frame with elastomeric insulator
Process recording	Automatic alignment



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