



Education and R&D oriented, Manual Flip-Chip Bonder 5 μm

The **ACCURA M** is a manual flip-chip bonder that allows $\pm 5 \mu\text{m}$ accuracy. This equipment permits to align manually the components with a high level of precision.

The motorized arm controls precisely the bonding force. Combining and synchronizing the arm with the temperature controller, it guarantees a perfect quality and high repeatability of your process.

The **ACCURA M**, more than a pick-and-place system, offers thermocompression and reflow capabilities. It is the perfect equipment for universities and R&D institutes.

Applications

- Flip-chip, die attach
- Chip-to-chip, chip-to-substrate
- Laser diode, laser bar
- VCSEL, photodiode
- LED
- Micro assembly
- MEMS, MOEMS, MCM

Highlights

- **Accuracy*** $\pm 5 \mu\text{m}$
- **Process controlled thanks to closed loop systems**
- **Easy to use**
- **Granite structure offering high stiffness**
- **Vertical arm avoiding lateral shift during bonding**
- **Very small footprint on open platform**

*depending on configuration and application.



User benefits

- Open platform with simple user interface on touchscreen
- Quick start for new applications
- Superimposed images for easy manual alignment
- Bonding controlled by the machine to guarantee a high repeatability from sample to sample.

Main bonding processes

- Flip-chip bonding
- Die bonding
- Pick-and-place
- Thermocompression
- Reflow
- UV curing
- Gold, Gold/Tin, Indium, Copper

Specifications

Machine	
Footprint:	900 x 550 mm
Height:	650 mm
Weight:	~110 kg

Component size	
Chip (Upper die)	0.2 x 0.2 - 22 x 22 mm
Substrate (Lower die)	0.2 x 0.2 - 100 x 100 mm
Total thickness	0.05 to 7 mm

Bonding arm	
Accuracy*	± 5 µm
Z resolution	0.01 µm
Force*	Low force: 0.2 to 10 N High force: 1 to 200 N

Alignment stage	
XY stage	Manual
Theta travel	± 5°, resolution 20 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.

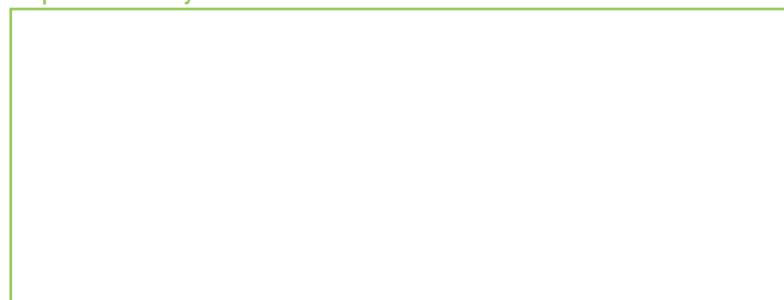
Bonding heads	
Room temperature	Sq. 22 mm
Heating	Sq. 22 mm, 400°C
UV	80 mW / cm ² @ 365 nm

Substrate chuck	
Room temperature	Sq. 50 or 100 mm
Heating	Sq. 22, 50 or 100 mm, 400°C

Optics	
Digital camera resolution	2 sight cameras 0.4 µm/pixel
Field of view	800 x 600 µm

Options	
Dispenser	Process recording
XY high resolution alignment stage, resolution 1 µm	Frame with elastomeric insulators
UV Curing system	Wafer frame up to Ø200 mm

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