

DIE & FLIP CHIP BONDING

H-System GA

Compact table-top die bonder for prototyping
and small batches — maximum working range,
minimal footprint.



5 μ m

Placement accuracy

300 × 240

Working area, mm

580 × 600

Footprint, mm

360°

Tool rotation

01 System overview

The H-System GA is a versatile die bonder in an overhead gantry arrangement, engineered to deliver a maximum working range from a minimal desktop footprint. Integrated beam-splitter optics overlay component and substrate in real time, making alignment intuitive and accurate. A force-controlled Z-axis guarantees a reproducible bond at every bond altitude, while a second Z-axis takes over loading, unloading, dispensing, dipping or stamping — with no tool exchange.

Integrated heating plates, heated pick-up tools and dispensers support the respective bond process. Built for micro-systems technology, the H-System GA adapts to all topical — and future — joining processes.

02 Applications

Die bonding / die attach	Assembly of optical components
Flip chip bonding	Assembly of lenses and lens arrays
CoS — chip on submount	Laser bar bonding
MEMS / MOEMS assembly	Assembly of mechanical components
Sensor assembly	Sorting of components
Assembly of medical parts	

03 Technologies

Thermo-compression (eutectic · Au/Au · Au/Sn)	Adhesive bonding	Dispensing
Dipping	Stamping	UV-curing

04 Key specifications & options

5 μm

Placement accuracy

10–500 cN

Bond force range

120 μm –25 mm

Component size

0.2 μm

Axis resolution XYZ · Theta
0.03°

300 × 240 × 60

Working area XYZ, mm

Manual + PR

Manual mode / pattern
recognition



05 Options

Different light sources

Dispensing / stamping with adhesive pot

UV-curing

Heated pick-up tools

Heating plates

Coplanarity pick-up tools

Process gas chamber

Support plate with vacuum

Input / output station, with or without vacuum

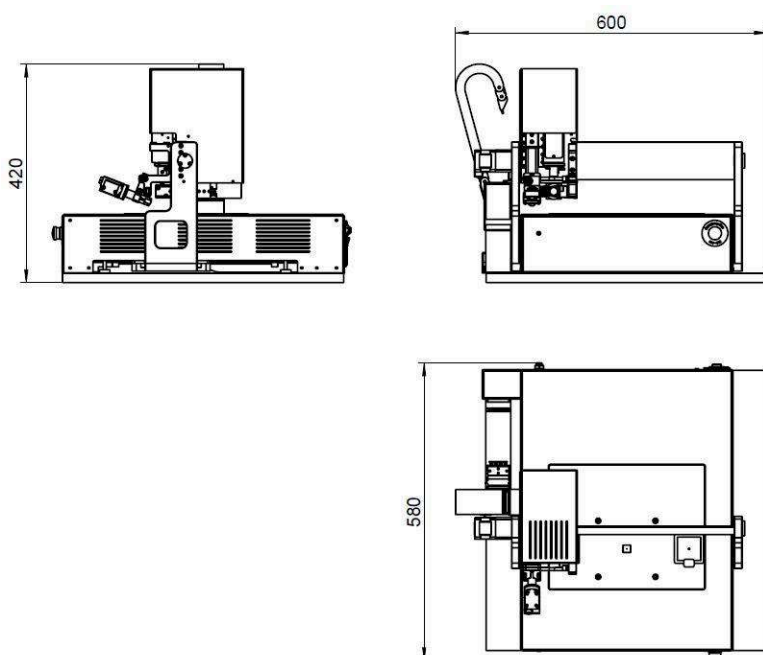
Inspection camera

**Not sure the process fits? We bond your samples first —
risk-free validation on your dies and substrates.**

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Voltage	230 V, 50 Hz, 1.5 A (depends on options)
Weight	60 kg (depends on options)
Connections	Power cable IEC-60320 C13 · Compressed air (6 mm pipe), 4.5–5.0 bar, ISO 8573-1:2000 [1:4:2] · N ₂ (6 mm pipe), 4.5–5.0 bar · Vacuum (6 mm pipe), -0.6 to -0.8 bar · 1× Sub-D option
Camera	1440 × 1080 pixel
Optics — single magnification	FoV ~5.6 × 4.2 mm · Resolution ~3.89 µm/pixel · Depth of field 500 µm
Optics — fourfold magnification	FoV ~1.7 × 1.4 mm · Resolution ~1.35 µm/pixel · Depth of field 100 µm

Travel range Z1 / Z2	60 mm / 60 mm
Travel range stage	10 mm
Working area XYZ	300 × 240 × 60 mm
Travel range X / Y	300 mm / 240 mm
Travel range Phi (Z stage)	360° (incl. heated pick-up tool)
Tool specifications	Diameter 3 -0.01 mm · Shaft length 12 mm · Overall length 17 mm · Max. length 20 mm (tool incl. component)

**600**

Width, mm

580

Depth, mm

420

Height, mm