finetech

FINEPLACER® pico 2

# Multi-Purpose Bonder

## The Most Powerful Tool for Lab & Research

- Numerous bonding technologies (adhesive, soldering, ultrasonic, thermocompression), including reflow soldering
- Full process access and easy programming

**Wide range of supported component sizes**

**In-situ process observation in HD**

**Modular machine platform allows in-field retrofitting during entire service life**

**Manual or semi-automatic machine versions**

**Large bonding area**

**Excellent price performance ratio**

# Features / Benefits

| Features | Benefits |
| --- | --- |
| Overlay vision alignment system (VAS) with fixed beam splitter | Precise visual alignment of chip and substrate |
| Freely configurable RGB LED illumination for alignment | For excellent visibility of structures and the most user-friendly alignment procedure of all table top bonders |
| Data/media logging and reporting function | Comprehensive process documentation and traceability of process parameters for analysis |
| Full process access & easy visual programming with touch screen interface | Fast composition of process sequences and intuitive process implementation |
| Process module compatibility across Finetech platforms | Transfer of qualified process parameters between systems |
| Individual configurations with process modules | Machine solutions tailored to your application requirements |
| Wide range of controlled bonding forces | Use low or high bonding forces within one system to meet the requirements of various bonding technologies |
| Sequence control with predefined parameters | Get your process steps in the right order of an intuitive and guided process flow |

# Technologies

» Sintering
» Thermocompression bonding
» Thermo-/ultrasonic bonding
» Soldering/eutectic soldering
» Adhesive bonding

# Processes

» Flip chip bonding (face down)
» Precision die bonding (face up)
» Wafer level packaging (FOWLP, W2W, C2W)
» 2.5D and 3D IC packaging (stacking)
» Chip on Glass (CoG)
» Chip on Flex/Film (CoF)
» Glass on glass
» Flex on board
» Chip on Board (CoB)

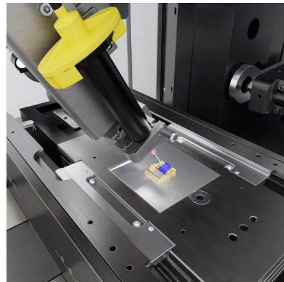
# Applications

» X-Ray detector assembly
» Ink jet print head assembly
» RFID module assembly
» RF/HF module assembly
» IGBT assembly
» Ultrasonic transceiver assembly
» Generic MEMS assembly
» Acceleration sensor assembly
» Gas pressure sensor assembly
» Generic MOEMS assembly
» Visual image sensor assembly
» NFC device packaging
» Mechanical assembly

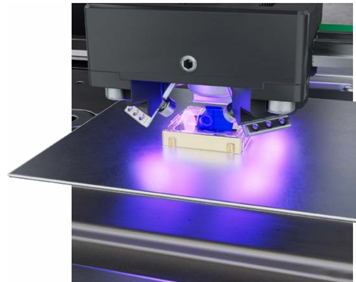
# Modules & Options

- » Gap Adjustment Module
- » Component Presentation
- » Bonding Force Module (automatic)
- » Bonding Force Module (manual)
- » Camera Y-Shift Module
- » Chip Heating Module
- » Direct Component Printing Module
- » Dispense Module
- » Form Generator
- » Formic Acid Module
- » Manual Dipping Unit
- » Optics Shifting
- » Process Gas Selection
- » Process Gas Module
- » Process Video Module
- » Substrate Support
- » Substrate Heating Module
- » Tool Tip Changer
- » Ultrasonic Module
- » UV Curing Module

Process Video Module



Dispense Module



UV Curing Module

Process Gas Module

**Accuracy**

3µm

10µm

**Component**

min. 0.05mm x 0.05 mm
max. 100mm x 100mm

**Substrate**

350mm x 300mm

**Force**

0.2N

500N

**Operation**

manual

semi automatic

automatic

# Seamless Process Transfer from R&D to Production

How many of your promising product ideas got lost on the way from development to series production? Could you not follow through because of your die bonder's technological restrictions or the uncertain return on invest? Did you get stuck trying to automate your prototyping processes according to production requirements?

With Finetech's "Prototype-to-Production" approach, you ensure 1:1 process transfer from R&D to production while maintaining full technological freedom, allowing for short time-to-market with minimized financial risks.

Download the paper here:

## Modularity Pays Off

Due to a large number of available process and function modules, the FINEPLACER® supports a particularly wide range of applications. When starting out, this flexibility enables configurations tailored exactly to the current needs. Moreover, the system can be adapted to new tasks over its entire service life, which is an integral part of the machine concept. Modules can be easily combined or exchanged, which increases the flexibility of the system and safeguards the investment in the long term.

### Customer Feedback

"We use a Finetech die bonder for complex flip chip, sensor and opto-electronics applications, along with co-development of new assembly processes for leading semiconductor customers. The bonder has allowed us to help customers develop, optimize, verify and enhance many state-of-the-art technologies."

**Dhiraj Bora**
CEO & President, Silitronics

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TÜV SÜD ISO 9001