

FineXT 5205

Multi-Purpose Bonder

The Ideal Solution for Customized Production

- » Up to 5 freely configurable slots for various technology heads
- » 3D assembly / MID capability with active alignment



Various bonding technologies in one recipe

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3D camera system

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In-line capability with automatic substrate transport system

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In-field configurable working area

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Wide range of supported component sizes

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

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Wide range of component presentation incl. tray/ tape feeder

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Large bonding area

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Features

Multi-chip capability

Multi wafer capability

Numerous bonding technologies (adhesive, soldering, thermocompression, ultrasonic)

3-color LED illumination

Synchronized control of all process related parameters

Process and material traceability via TCP (MES, SMEMA)

Automatic tool management

Fully automatic material management

Benefits

Handling of different chips in one process with various tools and ejectors for the assembly of complex packaging modules

Pick-up chips from multiple wafers by means of the Die Eject Module, load and unload wafers via cassette

Real flexibility by combining various technologies within one system to work on diverse projects

Excellent contrast values with different materials for best visibility and recognition

Maximum process control and reproducibility

Full single device traceability, process and production line control for highest yield

In-situ tool tip change enables multi chip processes without operator intervention

Fast and continuous process flow due to simultaneous material preparation, incl. status log

Technologies

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

Processes

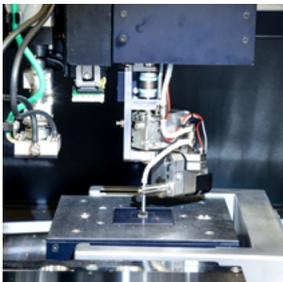
- » Flip chip bonding (face down)
- » Precision die bonding (face up)
- » 2.5D and 3D IC packaging (stacking)
- » Multi chip packaging (MCM, MCP)
- » Chip on glass (CoG)
- » Chip on flex/ film (CoF)
- » Glass on glass
- » 3D-MID bonding
- » Flex on board
- » Chip on board (CoB)

Applications

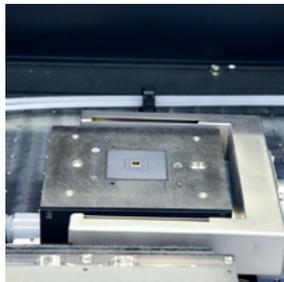
- » IGBT assembly
- » High-power laser module assembly
- » Generic MOEMS assembly
- » Generic MEMS assembly
- » NFC device packaging
- » RFID module assembly
- » Visual image sensor assembly
- » Acceleration sensor assembly
- » Gas pressure sensor assembly
- » Mechanical assembly
- » Ultrasonic transceiver assembly
- » RF/HF module assembly

Modules & Options

- » Automatic Dipping Unit
- » Automatic Tool Changer
- » Bonding Force Module (automatic)
- » Camera Module (3D)
- » Camera Module (Telecentric)
- » Camera Module (Up-Looking)
- » Chip Heating Module
- » Component Presentation
- » Die Eject Module
- » Die Flip Module
- » Dispense Module
- » Formic Acid Module
- » Handling Module
- » Height Scanner (3D camera)
- » Height Sensor (Laser)
- » Height Sensor (mechanical)
- » HEPA-Filter
- » ID Code Reader
- » Indexer/Conveyor
- » Laser Activation Module
- » Laser Bottom Heater
- » Lift-Station
- » Manual Dipping Unit
- » Motorized Nick & Roll Motion
- » Plasma Cleaning
- » Precision Scale
- » Process Gas Module
- » Process Video Module
- » Programmable Wafer Changer with Cassette Lift
- » Scrubbing Module
- » Solder Removal Module
- » Substrate Heating Module
- » Substrate Support
- » Traceability Module
- » Tray & Tape Feeder
- » Ultrasonic Module
- » UV Curing Module
- » Wafer Heating Module



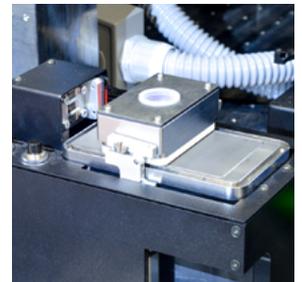
Ultrasonic Module



Substrate Heating Module



Automatic Tool Changer



Manual Dipping Unit

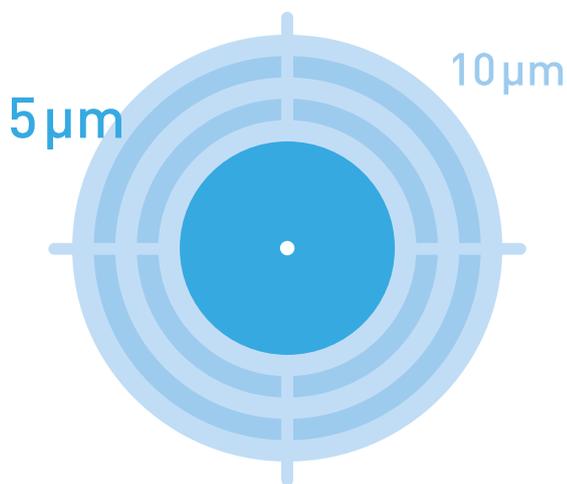


Modularity Pays Off

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.



How We Understand Accuracy



For assembly systems in packaging technology, so-called die bonders, the specified placement accuracy is an essential key figure for classification. However, it is often not clear which accuracy is meant and how or when it is measured. Therefore, Finetech relies on a transparent and verifiable method description of how the accuracy of our placement and assembly systems is measured and specified. This technical paper explains the context as well as the influencing factors of accuracy and shows which conclusions the customers can draw for themselves from the specified accuracy of Finetech products, but also those of other manufacturers.



[Download the paper here:](#)

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