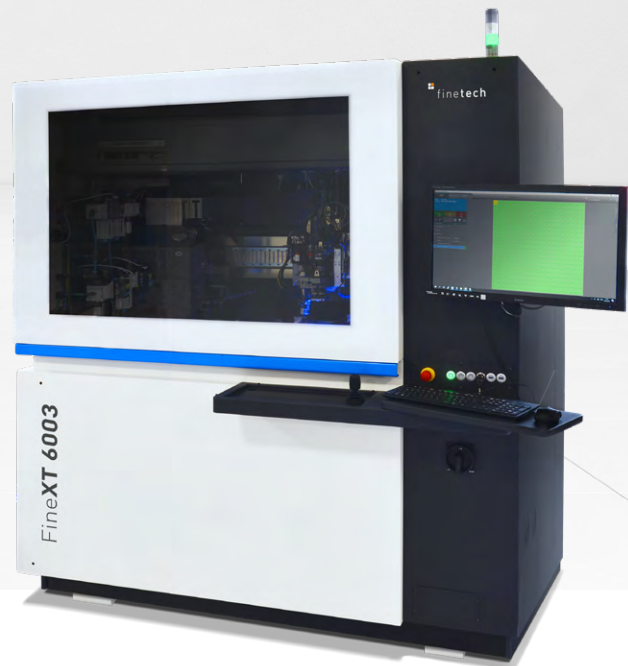


**FineXT 6003**

# Large Area Multi-Chip Bonder

**Speed and Precision in Production**

- » Placement accuracy of 3  $\mu\text{m}$
- » Very large bond area for wafers and panels



**Automatic placement accuracy calibration**

.....

**Multi-chip capability**

.....

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

.....

**Fully automatic material management**

.....

**In-line capability with automatic substrate transport system**

.....

**Multi wafer capability**

.....

**Automatic tool management**

.....

## Features

Numerous bonding technologies (adhesive, soldering, thermocompression, ultrasonic)	Real flexibility by combining various technologies within one system to work on diverse projects
Various bonding technologies in one recipe	Real flexibility to implement new technology approaches
3-color LED illumination	Excellent contrast values with different materials for best visibility and recognition
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
Synchronized control of all process related parameters	Maximum process control and reproducibility
Process and material traceability via TCP (for MES)	Full single device traceability, process and production line control incl. wafer and material mapping for highest yield
Individual configurations with process modules	Machine solutions tailored to your application requirements.
Integrated scrubbing function	Void reduction and improved surface wetting condition for optimized soldering quality
Wide range of component presentation (wafer, waffle pack, gel-pak®)	Handling of different component presentations in one process

## Benefits

## Technologies

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

## Processes

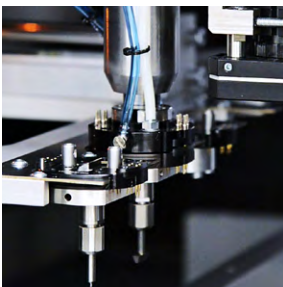
- » Flip chip bonding (face down)
- » Precision die bonding (face up)
- » Wafer level packaging (FOWLP, W2W, C2W)
- » 2.5D and 3D IC packaging (stacking)
- » Panel level packaging (FOPLP)
- » Multi chip packaging (MCM, MCP)
- » Chip on glass (CoG)
- » Chip on flex/film (CoF)
- » Glass on glass
- » Chip on board (CoB)
- » Embedded die packaging

## Applications

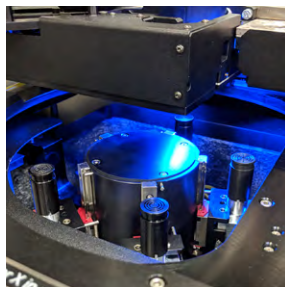
- » Optical Sub Assembly (TOSA/ROSA)
- » High-power laser module assembly
- » Laser diode bar assembly
- » Laser diode assembly
- » Mechanical assembly
- » RF/HF module assembly
- » VCSEL/photo diode (array) assembly
- » Micro optics assembly

# Modules & Options

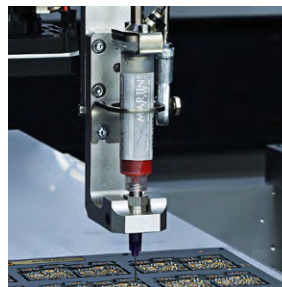
- » Automatic Dipping Unit
- » Automatic Tool Changer
- » Chip Heating Module
- » Component Presentation
- » Die Eject Module with Carousel
- » Die Flip Module
- » Dispense Module
- » Flexible Die Presentation
- » Formic Acid Module
- » Handling Module
- » Height Sensor (Laser)
- » I/O Lift System
- » I/O Panel Handling System
- » ID Code Reader
- » Manual Dipping Unit
- » Process Gas Module
- » Process Gas Selection
- » Programmable Wafer Changer with Cassette Lift
- » Substrate Heating Module
- » Substrate Support
- » UV Curing Module
- » Wafer Heating Module
- » Wafer Changer
- » Wafer Table



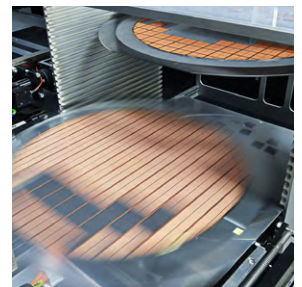
Automatic Tool Changer



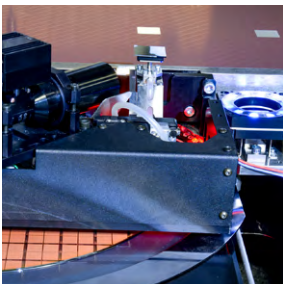
Die Eject Module



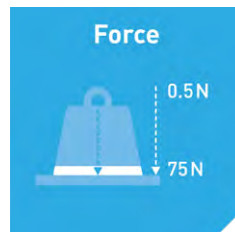
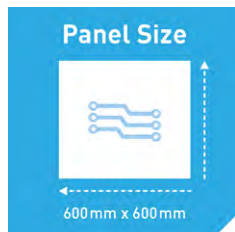
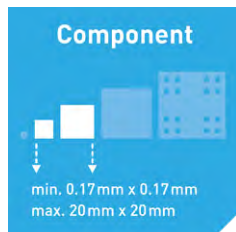
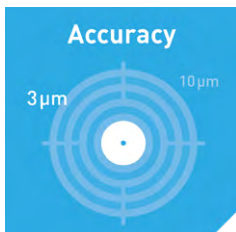
Dispense Module



Programmable Wafer Changer with Cassette Lift



Die Flip Module

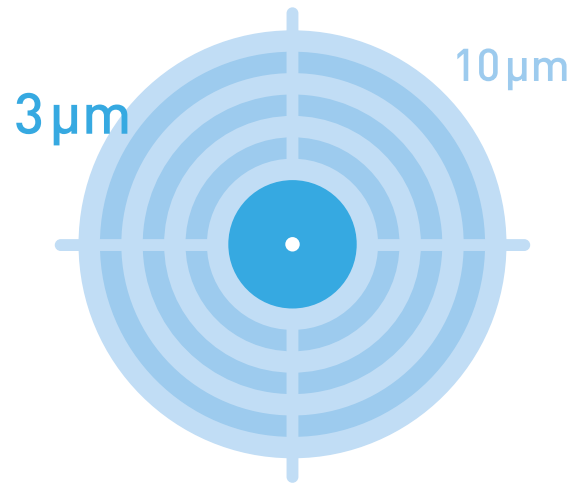


# How We Understand Accuracy

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:](#)



## 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