Esec 2100 hS ^{ix}

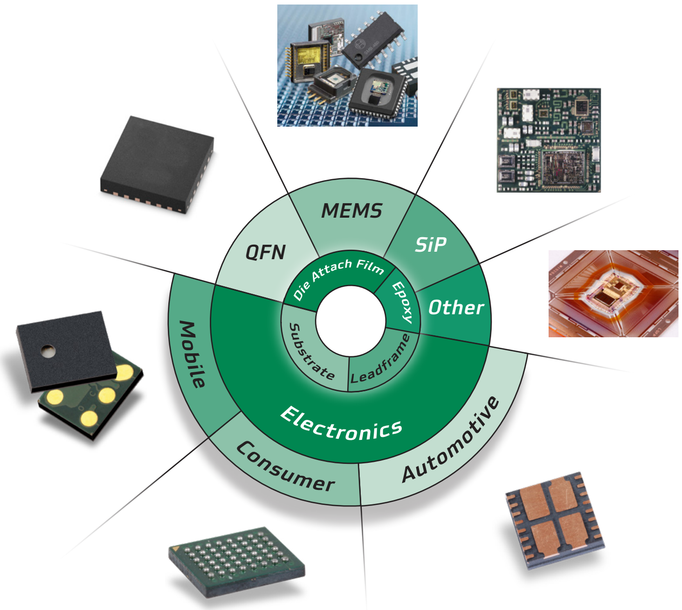
Future Proof Equipment

The New Generation High Speed Die Bonder

The Esec 2100 hS ^{ix} is the latest member of the 2100 ^{i} Die Bonder family. It is optimized for highest speed and scratch-free transport thanks to the easy-to-use motorized and programmable rail strip handler.

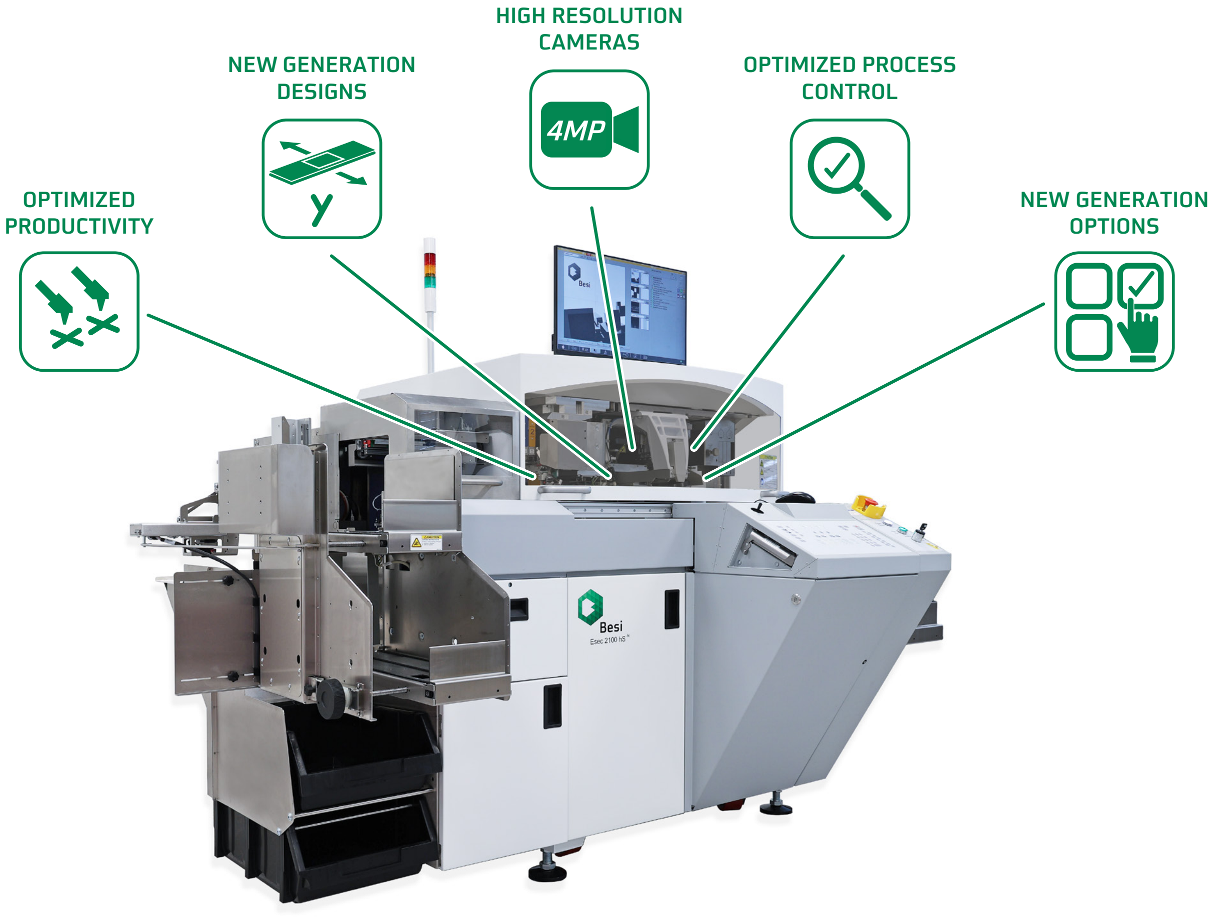
It also incorporates the proven features of the 2100 ^{i} generation, such as the High Resolution Vision Systems and the Dual Dispensing Module.

The Esec 2100 hS ^{ix} is the new generation High Speed Die Bonder providing now the best Cost of Ownership (CoO).



Process Quality at Even Higher Speed

- Productivity up to 18500 UPH
- High speed soft pick and bond processes
- Motorized and programmable rail strip handler
- Dual Dispensing Module with independent writing axes
- High Resolution Vision System with Up Looking Vision Option
- Low Contrast Kit enables the vision to detect almost anything



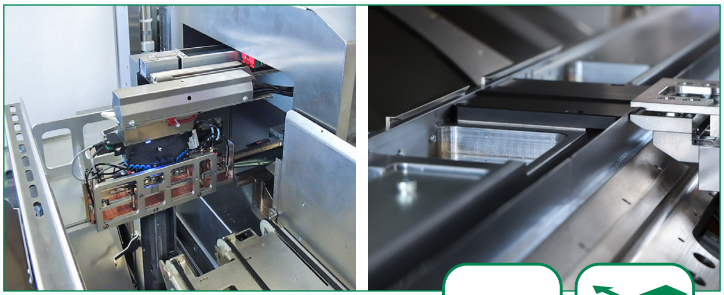
OPTIMIZED PRODUCTIVITY

NEW GENERATION DESIGNS

HIGH RESOLUTION CAMERAS

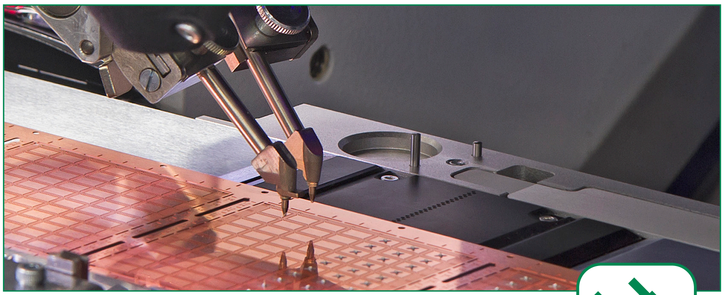
OPTIMIZED PROCESS CONTROL

NEW GENERATION OPTIONS



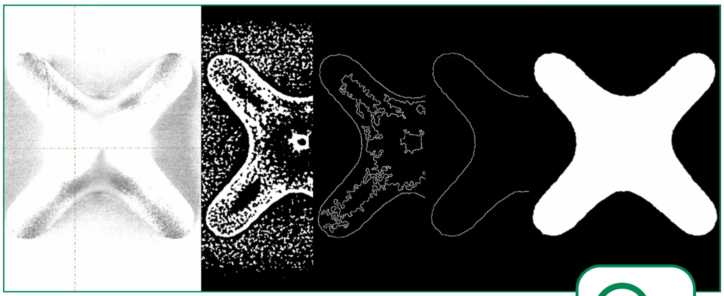
New Generation Designs

- High Resolution 4 mega pixel Vision Systems
- Motorized and Programmable Rail Strip Handler with three clamps, optimized for scratch free production
- New reliable Strip push out to Magazine by Clamp
- New Dual Universal Top Stack and Magazine Input Handler
- New All-in-One Expansion unit for all frame sizes



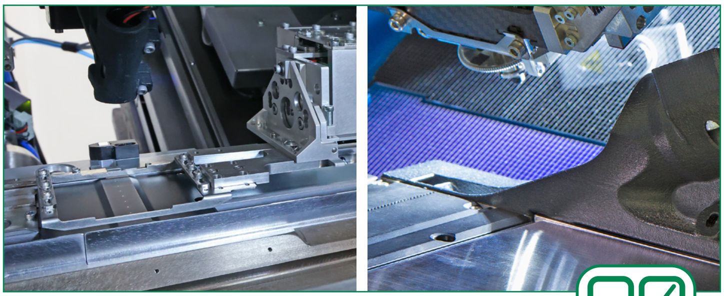
Optimized Productivity

- Motorized Rail Strip Handler allowing working position as close to Wafer as possible
- Superior and proven P&P design with High Performance P&P Y-axis and speed optimized trajectories
- Speed Optimized Soft Pick and Bond Processes
- Dual 5 bar Pneumatic Dispense System with independent writing axis and pressure control



Optimized Process Control

- High Accuracy Production Modes
- Low Contrast Object detection vision capability
- Up to three calibrated Dual Color Light Sources per camera
- Full High Definition (FHD) Graphical User Interface with multiple camera inspection images and Viewers



New Generation Options

- Speed optimized Pneumatic Downholder System
- High Precision Bond Head with highly accurate Theta Axis
- High Accuracy closed loop P&P Z Axis
- New High Resolution Up looking Vision System
- Automatic Tool Setups and Optimizations

Machine Dimensions

- Footprint: W x D x H: 1785 x 1448 x 1400 mm
- Weight: approx. 1400 kg

Supply Requirements

- Voltage: 208 - 230 VAC (@ 47 - 63 Hz)
- Power rating: 800 - 1100 VA
- Compressed air: min. 5.2 bar
- Vacuum: min. -0.75 bar
- Nitrogen blow: 1.8 - 6 bar

Wafer and Die Dimensions

- Wafer size: 4” - 12”
- Frame size: 8” - 12”
- Die size*: 0.15 - 8 mm
- Die thickness: > 0.075 mm

Leadframe Size

- Width (standard): 58 - 102 mm
- Width (with narrow kit*): 23 - 67 mm
- Length: 90 - 300 mm
- Thickness: 0.1 - 0.5 mm

Process

- Bond force: 0.2 - 10 N
- Bond rotation: 360°
- Bond heating: programmable, max. 170°C (simple DAF only)

Die Placement Accuracy

- >2 mm: 18 µm / 0.2° (3σ) (high speed mode)
- >2 mm: 12 µm / 0.2° (3σ) (accuracy mode)
- >2 mm: 10 µm / 0.15° (3σ) (up looking vision)
- 0.5 - 2 mm: 20 µm / 1.0° (3σ)
- MTBF: > 200 h

* Option or accessory may be required.