

eurolplacer



iiA3  Standalone productive platform

iiA4  The high-volume solution



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Yesterday's challenge to combine speed and flexibility is now overcome thanks to the innovations brought by Europlacer in the new atom platform.

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iiA3

The *ii-A3* machine hosts a pair of pioneering Pulsar pipette heads for high-speed placement matched with a single eight-nozzle Tornado turret head for agile flexible mounting. In *ii-A3*, they join forces under intelligent software control to deliver optimum throughput at placement speeds up to 64,000cph. Yet *ii-A3* handles the broadest range of components with ease, from 01005 profiles to oddform parts up to 100mm and a weight of 300 grams. *ii-A3* is the placement machine that responds to the need to increase production rates for high margin products, where a lack of flexibility is not an acceptable compromise.

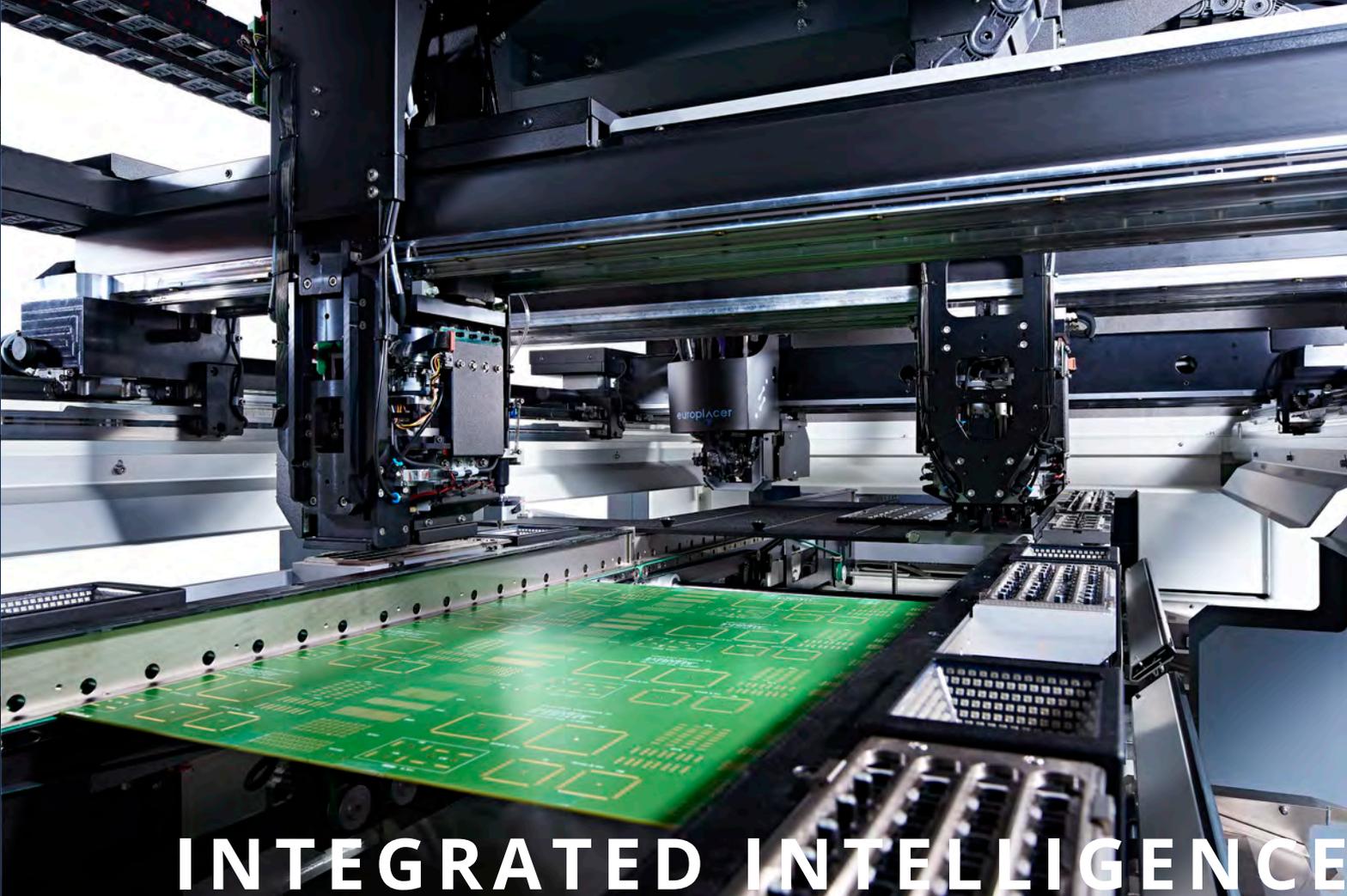
iiA4

The *ii-A4* is all about raw performance. Deploying four independent gantries, each supporting a single Pulsar pipette head, *ii-A4* pushes placement speeds into six-figure territory for devices from 01005 profiles up to 13x13mm dimensions and a height up to 7mm. Intelligent placement routines that include fully-optimized pick-to-place head trajectories drive placement up to 100,000cph and maintain Europlacer's acclaimed accuracy. In line with a high-flexibility platform, *ii-A4* will achieve productivity levels never seen before with Europlacer solutions. *ii-A4* is simply Europlacer's fastest placement machine.

LESS WEIGHT. MORE SPEED

Innovations in design aspects and use of materials in the structure of the atom platform reduce weight in performance-critical areas, like the moving mass of gantries and placement heads. Extruded y-axis gantries trim 30% off the mass of their cast counterparts. With lightness comes agility. In atom platforms, gantries are driven in the x-axis at both ends simultaneously, using synchronized linear motors with precision encoders that total control over mechanical deflection risks under high-speed motion and 2g acceleration movements.

The head geometry of the pioneering Pulsar pipette heads helps to reduce z-axis moving mass to just 50 grams. Such light weight allows accelerations up to 4g. Up to eight machine vision stations are strategically positioned within the atom platform structure. During the pick-to-place trajectory, Pulsar heads fly over high-resolution cameras mounted in these stations.



INTEGRATED INTELLIGENCE

OPTIONS

- Offline preparation
- Stock Management
- Full Traceability
- PROMON Software
- Automatic conveyor width adjustment
- Paste & glue dispenser
- Heavy PCB kit
- Large PCB kit
- High resolution fixed camera
- Electrical tester
- Barcode feeders
- Bulk feeders
- Ball feeders for BGAs
- Flux feeder & PoP processing
- Tray sequencer

With its high placement speeds, huge capacity, impressive flexibility and extensive range of options, the atom platform is all about maximizing productivity.

On-machine inventory capacity remains industry-leading at 264 x 8mm reels plus an optional automatic 30-tray sequencer. **ii-A3** can accommodate internal waffle tray options. With these vast component resources, product changeover is fast and easy.

Intelligent feeder technology used across all Europlacer platforms is immediately compatible with all atom platform configurations. Fast feeders enable the exceptional placement speeds, while broad compatibility allow the Europlacer product range to evolve without impacting previous investments in feeders and accessories.

atom is the first Europlacer platform to feature a new intelligent conveyor system. This patented technology eliminates mechanical board stops. Instead, machines in the atom platform range can stop the board at any position under software control. It delivers another incremental step in placement performance by automatically optimizing head travel paths during pick and place cycles. It also enables a long board handling mode, allowing the **ii-A3** and **ii-A4** machines to accommodate boards over 2 meters in length.

TAKE FLEXIBILITY TO THE NEXT LEVEL



atom

The atom platform from Europlacer takes placement flexibility and placement speed to new levels. Equipped with all the historic technology developments that forged the reputation of the Europlacer brand in terms of reliability and flexibility, the new innovations brought to this platform consolidate our technical advances to deliver incredible performance.

The Pulsar high-speed head features eight intelligent nozzles capable of gang-picking. The innovations brought by advanced materials technology are at the core of these performance enhancements. Pulsar's lightweight structure allows it to achieve speeds and accelerations that exceed all previous Europlacer platforms. Innovative diamond nanocoating on titanium axes enable Pulsar to be lubrication free, reducing costs associated with maintenance and service intervention to the absolute minimum.

Each Pulsar head sits on its own gantry driven by synchronized motors at both ends. This robust new control structure underpins the reliability of rapid motion, readily absorbing the forces generated by record speed and acceleration metrics. The developments that reduce weight and miniaturize the axes now make it possible to replace a flexible Tornado turret head with two high-speed Pulsar pipette heads. In the ii-A3 and ii-A4 machines, with physical dimensions comparable to previous Europlacer platforms, a choice of placement head options give rise to increases in efficiency that drive yields.

Across the atom platform range, nothing has been left to chance. All peripherals have been designed to contribute to performance gains. Integrated intelligence is distributed throughout the entire machine, especially with the patented conveyor system that eliminates mechanical board stops and makes it possible to set optimum stop positions that help to maximize placement throughput.



| SPECIFICATIONS | iiA3 | iiA4 |
|--------------------------|---|-----------------------------------|
| COMPONENT RANGE | 01005 TO 50MM X 50MM | 01005 TO 13MM X 13MM |
| WITH FIXED CAMERA OPTION | 99MM X 99MM (MORE ON DEMAND) | --- |
| MAX COMPONENT HEIGHT | 34MM | 7MM |
| STANDARD FEEDERS | 4MM TO 104MM TAPES | 4MM TO 104MM TAPES |
| SPECIAL FEEDERS | BULK, LABEL, SOLDER BALL | BULK, LABEL, SOLDER BALL |
| FEEDER CAPACITY | 264 POSITIONS X 8MM | 264 POSITIONS X 8MM |
| INTERNAL FEEDERS | MATRIX TRAYS | --- |
| PLACEMENT HEADS | 2 X PULSAR HEADS, 1 X 8-NOZZLE TORNADO HEAD | 4 X PULSAR HEADS |
| MAXIMUM PCB SIZE | 2059MM X 715MM* | 2099MM X 715MM* |
| MAX PLACEMENT RATE | PULSAR: 26,000CPH X 2 (TAKT TIME) TORNADO: 14,000CPH (TAKT TIME) | PULSAR: 26,000CPH X 4 (TAKT TIME) |
| IPC PLACEMENT RATE | PULSAR: 20,000CPH X 2 TORNADO: 11,580CPH | PULSAR: 20,000CPH X 4 |
| PLACEMENT ACCURACY | 35UM (QFPS) TO 50UM (CHIPS) @ 3 SIGMA | 50UM (CHIPS) @ 3 SIGMA |

* UNDER CERTAIN CONDITIONS

As part of our policy of continuous development, specifications are subject to change without prior notice.



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