

eurolplacer





//

Advanced materials technology is the foundation of the fastest flexible placement machines ever to come out of the Europlacer development lab.

//



atom3

The *atom3* machine hosts a pair of pioneering Pulsar pipette heads for high speed placement matched with a single eight-nozzle turret head for agile flexible mounting. Each head occupies its own independent gantry. In *atom3*, they join forces under intelligent software control to deliver optimum throughput at placement speeds up to 65,000cph. Yet *atom3* handles the broadest range of components with ease, from 01005 profiles to oddform parts up to 100mm in size. *atom3* is Europlacer's fastest flexible placement machine.

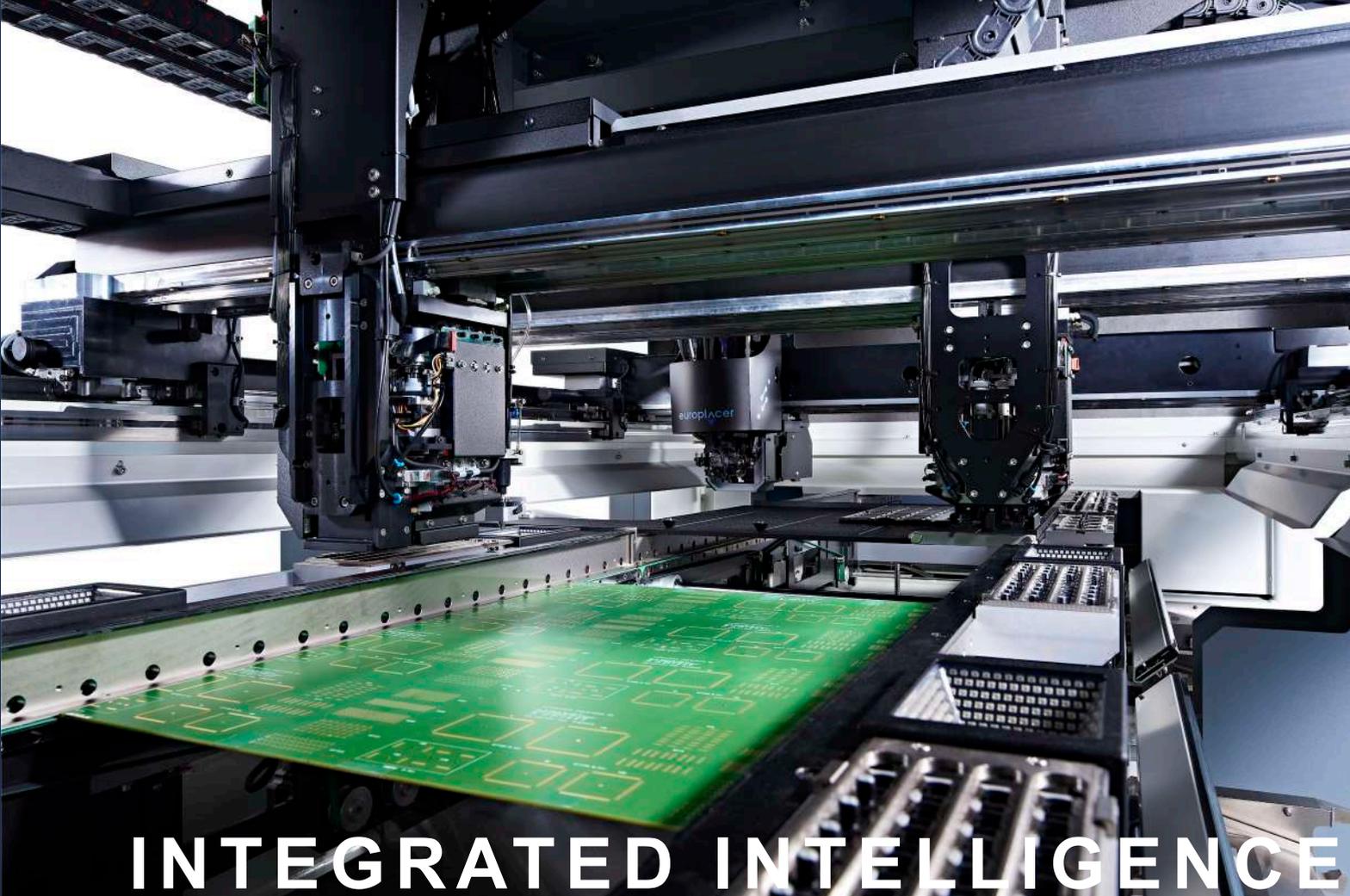
atom4

The *atom4* is all about raw performance. Deploying four independent gantries, each supporting a single Pulsar pipette head, *atom4* pushes placement speeds into six-figure territory for devices from 01005 profiles up to 13mm x 13mm dimensions. Intelligent placement routines that include fully-optimised pick-to-place head trajectories and patented automatic board stop positioning drive placement speeds up to 104,000cph, yet maintain Europlacer's acclaimed accuracy. *atom4* 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, but also a potential for flex under the high accelerations demanded by six-figure placement rates. Not so in *atom*. Gantries are driven in the x-axis at both ends simultaneously, using synchronised linear motors with precision encoders. Mechanical deflection is eliminated. And acceleration is increased by 66% to 2g.

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 storage

Barcode feeders

Bulk feeders

Ball feeders for BGAs

Flux feeder

PoP processing

Tray sequencers

Dispensers

PROMON software

Stock control

Fixed camera

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

Intelligent feeder technology used across all Europlacer platforms is immediately compatible with all **atom** machine configurations. Fast feeders enable the exceptional placement speeds, while broad compatibility helps protect investment.

On-machine inventory capacity remains industry-leading at 264 x 8mm reels plus an optional automatic tray sequencer. **atom3** can accommodate internal waffle tray options. With these vast component resources, product changeover is fast and easy.

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

FAST. FLEXIBLE. FAST & FLEXIBLE.



atom

The **atom** platform from Europlacer takes placement flexibility and placement speed to new levels. At the heart of astounding performance gains is the pioneering Pulsar pipette head that features in all **atom** machine configurations. Each Pulsar head contains eight smart nozzles, sits on its own independent linear-motor-driven gantry, and deploys innovative diamond nanocoatings and titanium componentry for completely maintenance-free operation.

New lightweight materials used in Pulsar heads and in **atom** motion gantries slash moving mass to boost acceleration and shorten the pick-to-place cycle, correlating directly with faster placement speeds and opening the **atom4** machine to new markets. When combined with the legendary flexibility of Europlacer's turret head and industry-leading on-machine component inventory, **atom3** machines offer unparalleled productivity any way you measure it. High speeds, along with rapid changeover capabilities and automatic optimisation of placement paths, drive down the cost-per-placement across all atom platforms.



SPECIFICATIONS

| | atom3 | atom4 |
|----------------------------|--|--------------------------|
| COMPONENT RANGE | 01005 TO 50MM X 50MM | 01005 TO 13MM X 13MM |
| WITH FIXED CAMERA OPTION | 70MM X 70MM (100MM*) | --- |
| MAX COMPONENT HEIGHT | 34MM | 7MM |
| STANDARD FEEDERS | 8MM TO 104MM TAPES | 8MM TO 104MM TAPES |
| STANDARD FEEDERS | STICK, TRAY | STICK, TRAY |
| SPECIAL FEEDERS | BULK, LABEL, SOLDER BALL | BULK, LABEL, SOLDER BALL |
| FEEDER CAPACITY | 264 POSITIONS X 8MM | 264 POSITIONS X 8MM |
| INTERNAL FEEDERS | MATRIX TRAYS | MATRIX TRAYS |
| PLACEMENT HEADS | 2 X PULSAR HEADS, 1 X 8-NOZZLE TURRET HEAD | 4 X PULSAR HEADS |
| MAXIMUM PCB SIZE | 2059MM X 715MM* | 2099MM X 715MM* |
| MAX PLACEMENT RATE | 65,000CPH | 104,000CPH |
| IPC PLACEMENT RATE | 49,800CPH | 78,000CPH |
| 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.