europlacer
HIGH MIX PRODUCTIVITY

ii-A3

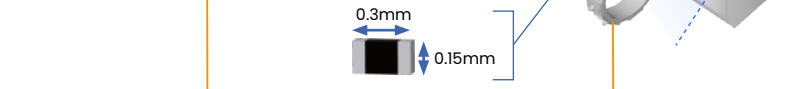
The Standalone Productive Machine

integrated INTELLIGENCE

atom range

Embedded Camera

- Hi-Res camera on Tornado head
- Down to 03015m



ii-RC Software

- A simple and easy-to-use interface
- Ergonomic and intuitive operation

Intelligent Conveyor

- Increase productivity without mechanical stops
- Automatically optimizes board stop position for maximum productivity

The Standalone Productive Machine

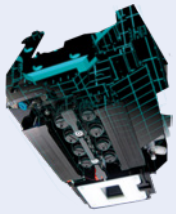
The ii-A3 machine combines a pair of Pulsar heads for high placement speed with one eight-nozzle turret Tornado head for flexible production. This combination of heads enables the ii-A3 to reach a maximum speed of 65,650 CPH* and to place a wide range of components from 03015m to 99 x 99 x 34 mm** with a maximum weight of 300g. The ii-A3 is the pick-and-place machine that overcomes the challenge of increasing throughput while maintaining flexibility.

Flexibility	▶ ▶ ▶
Feeder capacity	▶ ▶ ▶ ▶
Speed	▶ ▶ ▶ ▶

IPC CFX™

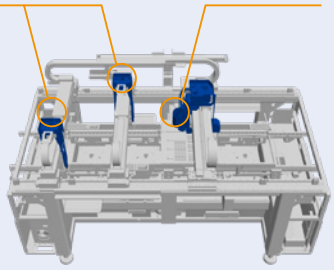
Smart Nozzles

- Reduced set-up time
- Nozzle type identifier
- Nozzles can be placed anywhere



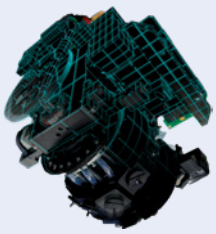
2 Pulsar Heads

- 8 nozzles
- Speed 26,000 CPH*
- Components up to 13 x 13 x 7mm



1 Tornado Head

- 8 nozzles
- Speed 13,650 CPH*
- Components up to 99 x 99 x 34mm**



ii-Tab

- Mobility Solution
- 10 Software applications
- Support for Setup, Stock Management and Production

Loading Capacity

- Configurable zones - ii-Feed trolleys (ii-Cart), tape feeder or special feeder
- Central Jedec tray support for large components

ii-Cart Intelligent Trolley

- Up to x33 8mm ii-Feed elements
- Accepts any mix of 8, 12, 16 or 24mm tapes

NT Feeder

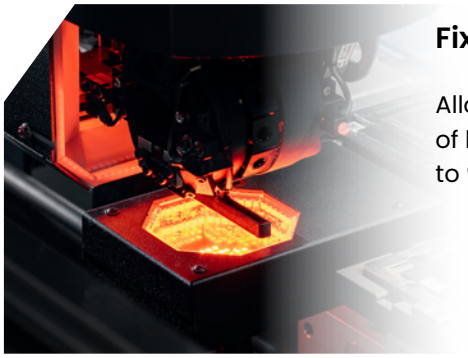
- From 4mm to 104mm width
- Component height up to 26.5mm

Machine compatible with all feeders in the Europlacer range, see Feeders brochure

* Optimum test conditions in factory

** With 8-nozzle Tornado head, matrix tray distributor with fewer shims, or auto tray loader with specific tray support

Options



Fixed Camera

Allowing the placement of large components up to 99 x 99 x 34mm*

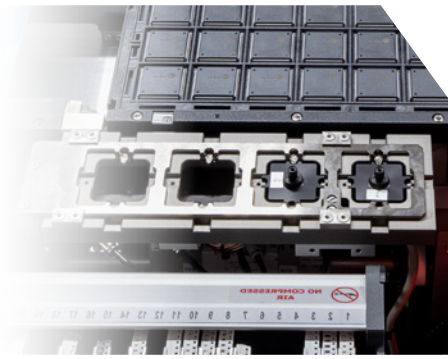
Dispensing System

- Glue or paste dispensing
- 2 different systems: air or auger valve

Special Nozzles Magazines

Can hold 4 special nozzles:

- Vacuum or gripper nozzles
- Heavy and large components

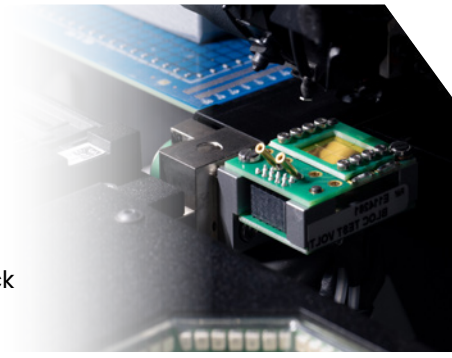


Rear Camera

- Scan rear feeder components
- Save time and gain in productivity

Electrical Test

- Passive RLC and Zener diode testing
- Hameg tester from Rhode & Schwarz
- Diode polarity check

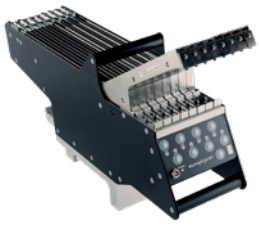


Recommended Accessories

Freeform Feeder

- Tray for unpackaged, bulk components
- Identify components regardless of their position

Belt Feeder



- Solution for components supplied in stick format
- SO, SO medium, SO large and TSSOP type components

Short Tape tray

- Ideal for short tapes 8, 12, 16 and 24mm
- Fiducially aligned for accurate pick up across the whole length of tape

Traceability Option With Label Feeder

- Dispensing 1D and 2D labels
- Sticker size from 4 x 8mm to 55 x 55mm
- Add serial number data to traceability option

Benefits

Flexibility

- **Component range**:
  From 03015m
  up to 99 x 99 x 34mm**
- **Feeder capacity:**
  264 x 8mm feeders
  5 Jedec central tray

Connectivity

- **ii-Tab:**
  Connect your Pick and Place machine to our mobile solution to help you prepare and monitor your production line.
- **CFX 1.7 compatible:**
  Easily connect the ii-A3 with all CFX compatible equipment in your production line.

Versatility

- **PCB range:**
  From 60 x 45mm
  to 865 x 715mm and 10kg

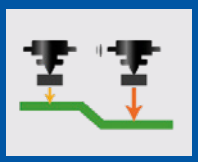
All-In-One Solution

- **Standalone:**
  Complete Pick and Place installation with only one machine.

Features

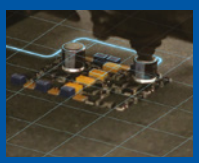
integrated INTELLIGENCE

3DPS



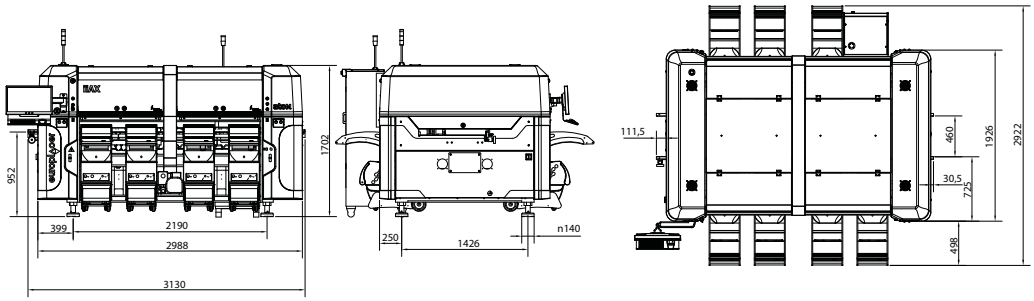
Real-time Z axis adjustment to compensate for any board warpage. No PCB support tooling pin needed.

AAS



Auto Adaptive Sequencing defines placement priorities and rules to avoid collision. It takes into account component and nozzle shapes, characteristics of the PCB and the trajectory of the heads.

** With 8-nozzle Tornado head, matrix tray distributor with fewer shims, or auto tray loader with specific tray support



Technical Specification

General

Electrical	400V/210V three phase 50Hz/60Hz, 8kVA
Air	7 bar, 30l/min
Noise	<70dB (A)
Working temperature	18°C to 30°C
Humidity	20% to 80% RH non-condensing
Weight	3000 kg (without feeders and packaging)

Heads Specifications

Head name		Pulsar	Tornado
Technology		Pipette	Turret
Nozzle position		8	8
Placement speed	**Max**	26 000 Cph* (takt time)	13 650 Cph* (takt time)
Placement Accuracy	**Chips**	50 µm @3σ Cpk ≥ 1.0	46 µm @3σ Cpk ≥ 1.0
	QFP	22 µm @3σ Cpk ≥ 1.0	22 µm @3σ Cpk ≥ 1.0
Component Range	**Minimum size**	0.4 x 0.2mm (01005)	0.3 x 0.15mm (03015m)
	Maximum size	13 x 13mm	50mm x 50mm as standard; 99mm x 99mm with fix camera option (more on demand)
	Maximum height	7mm	1 component mode 34mm **
	Type	Chips, MELFs, electrolytic capacitors, SO, PLCC, QFP, TSOP, QFN, BGA, µBGA, LGA, CSP, connectors, Flip chip, through hole and odd-form devices	
	Min lead pitch	0.2 mm (QFP) / 0.3 mm (µBGA) 0.1 mm (QFP) / 0.15 mm (µBGA) with optional fixed camera for turret	
	Min lead/ball size	0.1 mm (QFP) / 0.15 mm (µBGA) 0.05 mm (QFP) / 0.075 mm (µBGA) with optional fixed camera for turret	

* Optimum test conditions in factory

** With 8-nozzle Tornado head, matrix tray distributor with fewer shims, or auto tray loader with specific tray support

ii-A3 Specifications

Configuration		2 x Pulsar Heads + 1 Turret Head 3 x Independant X/Y linear gantries	
'Smart' nozzle tool banks		Standard	Options
		2 x 40 positions in front	Up to 2 x additional 40 positions at rear
		1 x 60 positions in front	1 x additional special tool bank (for odd form) 1 x 40 or 20 positions in front
Component analysis		2 x 'fly over' high resolution digital cameras in front	2 x 'fly over' high resolution digital cameras at rear
		1 x 'On-the-fly' high resolution digital camera	1 x fixed camera
Feeders	**Capacity**	264 x 8mm tape feeder position + equivalent of 5 Jedec matrix tray	
	Range	Full range of Europlacer intelligent feeders for 8mm to 104mm tapes, plastic sticks, wide range of matrix trays feeders, sequencer, short tape feeders, bulk feeders, fluxer, label feeder, solder ball feeder	
Board Handling	**Minimum PCB size**	60 mm x 45 mm	
	Max length	865mm	
	Max width	460 mm as standard / 510 mm (without camera+nozzles at rear) / 715 mm (without feeder at rear)	
	Thickness	0.5 mm to 10.0 mm	
	Max weight	3 Kg / (10 Kg as an option)	
	Board clearance	Under clearance: 25mm	
		Edge clearance: 3mm	
	Board location	Full edge clamping with fiducial correction	
	Conveyor type	Patented intelligent tracking system: without mechanical stopper, fully flexible, real-time status, contributes to throughput optimization	
	Transport criteria	Left to right, fixed front rail, height-adjustable 890mm to 975mm, SMEMA interface	

Options

- Fixed upward looking camera for larger and very fine pitch components on Turret head
- 'Fly over' high resolution digital cameras at rear
- Additional 40 position nozzle magazines at rear
- Electrical component testing
- Glue dispenser
- Heavy PCB kit for conveyor (10 kgs)
- Wide PCB kit 510mm (with no camera/ nozzles at rear)
- Wide PCB kit 715mm (with no feeder at the rear)
- Rear operating station
- Fixed internal tray holder zone 400mm x 490mm – 5 Jedec tray equivalent
- Articulated internal tray holder zone 400mm x 490mm – 5 Jedec tray equivalent

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

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