

europ^lacer
HIGH MIX
PRODUCTIVITY

ii-N2



Ultimate High-Mix Production



ilineo
range

ii-RC Software

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

Intelligent Conveyor

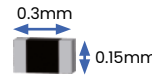
- ▶ Increase productivity without mechanical stops
- ▶ Automatically optimizes board stop position for maximum productivity

Short Tape Tray

- ▶ 8, 12, 16 and 24mm trays available
- ▶ Fiducially aligned for accurate pick up across the whole length of tape

Embedded Camera

- ▶ IA compatible Hi-Res camera on Tornado head
- ▶ Down to 03015m



Ultimate High-Mix Production

The ii-N2 platform is the perfect combination of performance and flexibility. This leading pick and place machine in the Europlacer range is designed to produce the most complex PCBs. The ii-N2 is equipped with two turret heads with eight or twelve nozzles, an embedded vision camera, and linear motor control. High-performance technology enables placement rates of up to 30,780 CPH* for a range of components from 03015m to 99 x 99 x 34 mm**.

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

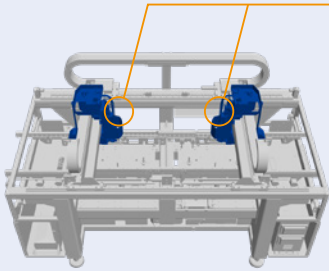


Smart Nozzles

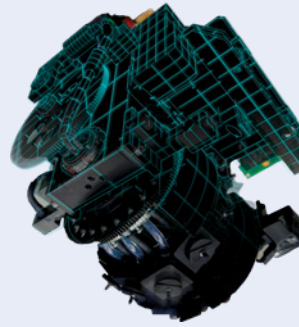
- ▶ Reduced set-up time
- ▶ Nozzle type identifier
- ▶ Nozzles can be placed anywhere



2 Tornado Heads



- ▶ 8 or 12 nozzles
- ▶ Speed 30,780 CPH*
- ▶ Components up to 99 x 99 x 34mm**

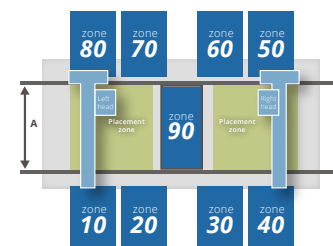


ii-Tab

- ▶ 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

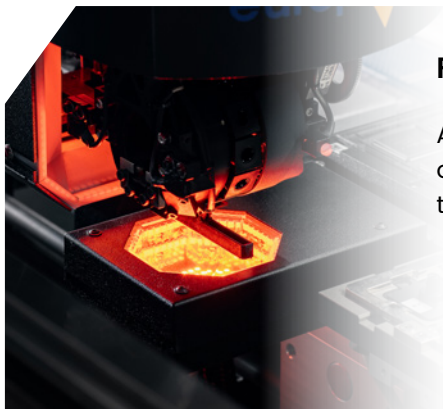
- ▶ From 4mm to 104mm width
- ▶ Component height up to 26.5mm

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

* With 12 nozzle position - Speed per head 15,390CPH - 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



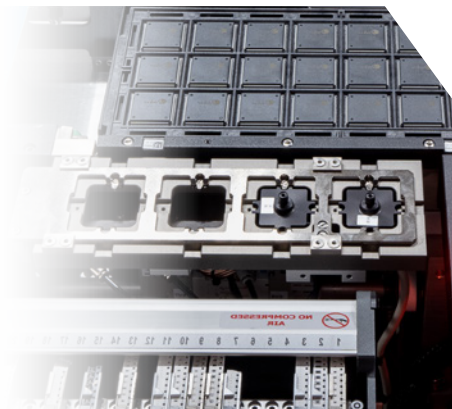
Fixed Camera

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

Special Nozzles Magazines

Can hold 4 special nozzles:

- ▶ Vacuum or gripper nozzles
- ▶ Heavy and large components

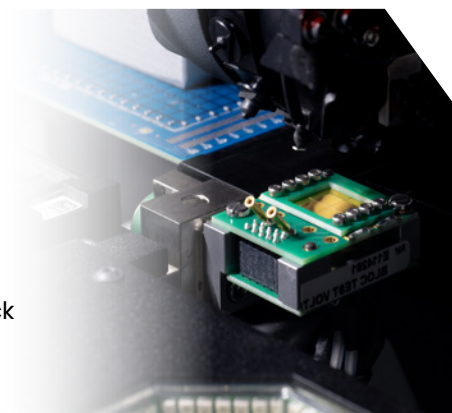


Dispensing System

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

Electrical Test

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



Recommended Accessories



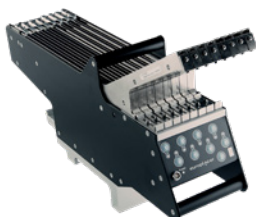
Freeform Feeder

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



Matrix Tray Distributor

- ▶ Stores up to 30 trays vertically



Belt Feeder

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



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
Up to 4 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-N2 with all CFX compatible equipment in your production line.



Versatility

- ▶ **PCB range:**
From 60 x 45mm
to 1610 x 600mm and 10kg



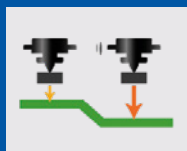
All-In-One Solution

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

Features



3DPS



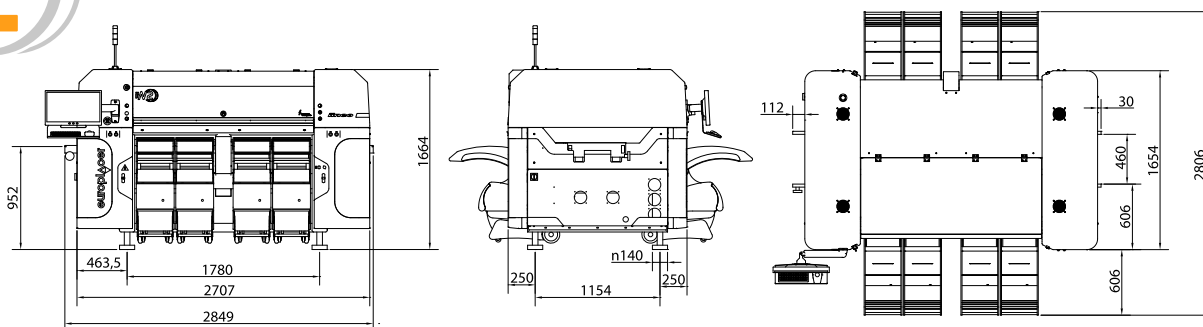
Real-time Z axis adjustment to compensate for any board warpage. No PCB support tooling pin needed.

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 phases 50Hz/60Hz, 5kVA
Air	7 bar, 30l/min
Noise	<70dB (A)
Working temperature	18°C to 30°C
Humidity	20% to 80% RH non-condensing
Weight	2200kg (without feeders)

Component Range	
Types	Chips, MELFs, electrolytic capacitors, SO, PLCC, QFP, TSOP, QFN, BGA, µBGA, LGA, CSP, connectors, Flip chip, through hole and odd-form devices
Minimum size	0.3mm x 0.15mm (03015m)
Maximum size	50mm x 50mm as standard; 99mm x 99mm with fixed camera option (more on demand)
Maximum height	Full revolution of turret 12mm ii-N2 - 1 component mode 34mm** ii-N2 - 1 component mode 31mm*
Minimum lead pitch	0.2mm (QFP), 0.3mm (µBGA) 0.1mm (QFP), 0.15mm (µBGA) with optional fixed camera
Minimum lead/ball size	0.1mm (QFP), 0.15mm (µBGA) 0.05mm (QFP), 0.075mm (µBGA) with optional fixed camera

* With 12 nozzle position - 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-N2 Capability	
Tact time	ii-N2 - 0.137 sec - 27,300cph ii-N2* - 0.12 sec - 30,780cph
Placement accuracy	22µm (QFPs) to 46µm (chips) @ 3 sigma
Placement head	2 rotary turret heads on X/Y linear motor gantries ii-N2 with 8 nozzle positions ii-N2 with 12 nozzle positions
Nozzles	60 position 'smart' nozzle tool bank for head 1 (20, 40 & 60 positions as an option for head 2) (Special 4 position tool banks as an option)
Component analysis	'On-the-fly' high resolution digital camera (fixed camera as an option)
Feeder range	Full range of intelligent feeders for 4mm to 104mm tapes, components in plastic sticks and matrix trays
Feeder capacity	264 x 8mm tape feeder positions 3 or 4 Jecdec matrix trays (equivalent)

Board Handling	
Minimum PCB size	60mm x 45mm
Maximum PCB size	Length: 2 x 500mm (with 90 central Jecdec tray), 2 x 700mm (without zone 90 central Jecdec tray), 1 x 1610mm Width: 460mm (600mm with option)
Thickness	0.5mm to 10.0mm
Weight	3kg max. (10kg max. as an option - Please consult us for higher valued weight)
Under board clearance	25mm
Board location	Full edge clamping with fiducial correction
Board edge clearance	3mm above, 5mm below
Transport criteria	Left to right (right to left optional), Fixed front rail, height-adjustable 890mm to 975mm, SMEMA interface

Options

- Fixed upward looking camera for larger and very fine pitch components
- Feeder trolley options for bulk change of individual feeders and 'mass' tape feeder ranges
- 30-position automatic tray loader (sequencer)
- Electrical component testing
- Glue dispenser
- Additional nozzle magazines
- Rear operating station
- Internal fixed tray holder zone 460mm x 325mm - 3 Jecdec tray equivalent (4 Jecdec tray equivalent with wide board option)

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

www.eurolacer.com

Europlacer UK
30 Factory Road, Upton Industrial Estate,
Poole, Dorset BH16 5SL
United Kingdom
contact@eurolacer.co.uk
+44 (0)1202 266500

Europlacer Asia Pacific (excl. China)
No. 126-16, Section 4,
Zhongxiao East Road, Da'an District,
Taipei City 106071
contact-apac@eurolacer.com
+886 (0)3 356 2778 (Giantec Electronics Inc.)

Europlacer Americas
4640 E. Elwood St., Suite 14,
Phoenix, AZ 85040
USA
contact@eurolacer.com
+1 (480) 672 1100

Europlacer Italy
Via Flavia, 35,
34148 Trieste
Italy
contact@eurolacer.it
+39 (0)40 832 0563

Europlacer France
Route de Cholet,
85620 Rocheservière
France
contact@eurolacer.fr
+33 (0)2 5131 0303

Europlacer Spain
AV Atenas 127,
19170 El Casar Guadalajara
Spain
contact@eurolacer.es
+34 (0)673 171 249

Europlacer China
Floor 1, Building 1, No.80 Huashen Road,
Shanghai, Waigaoqiao, Free Trade Zone,
200131, China
contact-china@eurolacer.com
+86 (021) 5868 3500

Europlacer Deutschland GmbH
Sebastian-Kneipp-Strasse 41
60439 Frankfurt am Main
Germany
contact@eurolacer.de