

# eurolplacer

## FEATURES | OPTIONS | FEEDERS

“ Europlacer’s enduring strength lies in its continuing ability to deliver innovative placement solutions without degrading the legendary flexibility that made the company a success. This flexibility delivers truly adaptable platforms that all incorporate Integrated Intelligence™ – an inspired concept based on intelligent feeders and intelligent machine functions that integrate seamlessly with external systems.

The intelligent feeder was developed by Europlacer in 1990. It is now adopted by most manufacturers. The feeder records the component identity, inventory count and pick-up correction, allowing the placement machine to confirm that it has picked the correct component.

As the creator of intelligent feeders, Europlacer designs its platforms around the feeders to deliver an incomparably integrated pick and place solution. To benefit fully from intelligent feeders, the machine must be able to maintain high throughput rates even when feeders are not installed in an optimum position. The Europlacer turret head and software architecture are instrumental in releasing this potential. That’s the foundation of Integrated Intelligence™, and all Europlacer machines are built upon it.

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## STANDARD FEATURES

### ① GRAPHICAL USER INTERFACE

The intuitive operator interface to the machine displays more information pictorially to give faster access without ambiguity. The programming software features tools to create ready-to-run assembly programs, helping to maximise efficiency and quality.

### ② COMPONENT ONLINE AUTO-GENERATION

This graphical interface lets users automatically create any type of new package, including chips, QFPs, BGAs and odd-form components in less than a minute. Analysis can be performed on the machine or at the offline station. A test routine validates the component, which can immediately be run in production.

### 3D<sup>PS</sup>

3D<sup>PS</sup> is an innovative Adaptive Positioning System used to optimise the pick and place process in X, Y and Z, in real time, for every individual component being placed. During the pick sequence, 3D<sup>PS</sup> automatically compensates for variations in picking altitudes, eliminating nozzle bounce and reducing miss-picks. The system removes the need for manual picking adjustments, allowing feeders and components to be positioned anywhere in the machine with absolute confidence. 3D<sup>PS</sup> also compensates for board bow and twist in real time to optimise placement height and force and deliver greater placement accuracy.

### ③ AAS

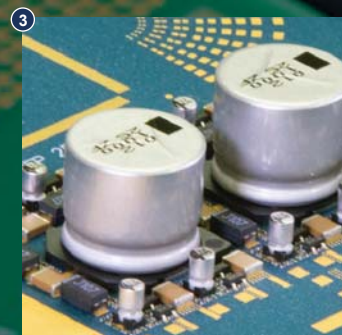
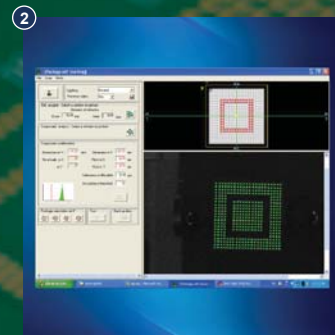
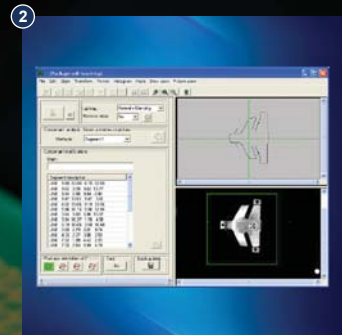
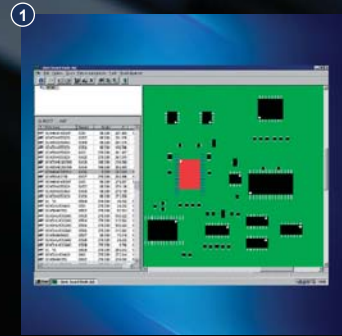
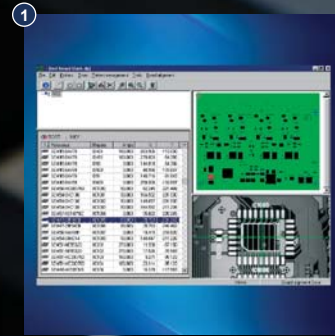
AAS is a powerful real-time tool that eliminates potential placement issues caused by poor programming or component run-out in production. AAS automatically defines placement priorities based on components already placed, creating a collision-free placement sequence. The process starts with program generation. Getting the placement program right first time results in an improved process and a better quality product.

This complex task is fully automatic, taking into account parameters such as component package, PCB topology, head trajectory and the optimum placement sequence. AAS retrieves all component data from the library and analyses the possible placement scenario to create placement rules for each component. These rules are applied automatically and are constantly monitored during a full production run, guaranteeing optimum performance and quality of product.

### NPI SOFTWARE

NPI is a fundamental process for any operation that requires a fast and seamless New Product Introduction process.

After loading a new PCB in the machine, operators just need to follow the different steps that help to check and validate all parameters involved in the new product. When an error is detected, the software allows the operator to make corrections and test without halting production.



*integrated  
intelligence™*

# STANDARD FEATURES

## OPTIONS

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### TOTAL TRACEABILITY™

Total Traceability lets users integrate full traceability into the production process. This intelligent system provides full data logging for component-level build traceability. It generates data for each board produced. The PCB camera reads board codes while the intelligent feeders hold batch data. The archive can be processed by PROMON production monitoring software or exported for traceability analysis. Based on product identification, the system also permits automatic program loading to streamline changeover.

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### PROMON

Serving as a production 'dashboard' for Europlacer machines, PROMON provides an easy-to-use single source of production management data. It continually collects and stores all production data from a machine, a single line, or multiple lines, with Live Mode allowing real-time viewing and local or remote analysis. Statistical Mode can analyse data over a specified period. With quantity data needed for management and reporting, and performance data instrumental in optimising productivity, PROMON is an ideal tool to analyse and search traceability data.

### STOCK MANAGEMENT

Stock management makes it possible to trace all parts used on the pick and place machines or across the shop floor environment. It allows users to easily locate all components and know the remaining quantities in near real time, while production is still running. When combined with our Lzero and Szero line storage systems, component management becomes a fully controlled and integrated process.

Stock management can be integrated into a customer's ERP system. It uses its universal interface and database to import or export data to and from alternative storage facilities, or external databases.

### MULTI-PROGRAM OPTIMISATION

Our Multi-Program Optimiser option creates common loading plans for groups of jobs. It minimises feeder changes, significantly reduces product changeover times and improves the general line throughput.

Reviewing and planning workload and loading patterns in advance, whilst reacting to component shortages or new priorities in real time is critical in a high mix environment. The optimiser is a simple graphical tool that improves efficiency and throughput across a single machine or a series of multiple machine lines.

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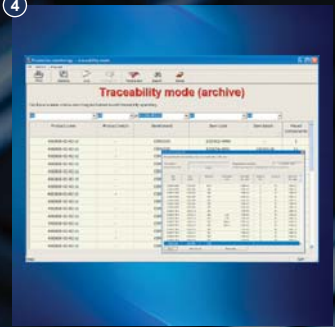
### CCEXPRESS

The next generation of ultra-fast NPI with data conversion from CAD, Gerber, or Centroid. A live link to the Europlacer package library features intelligent package matching. Our Item Analyser removes the need to spend time searching manufacturer's data sheets for tape and reel information with embedded EIA-681 Tape & Reel specs plus an analytical engine to determine tape width and pitch.

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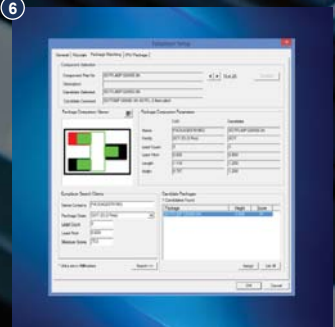
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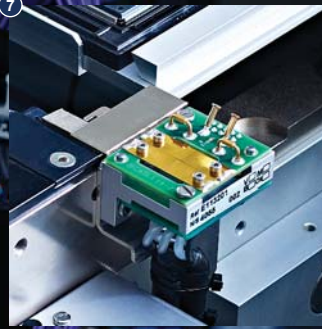
## OPTIONS

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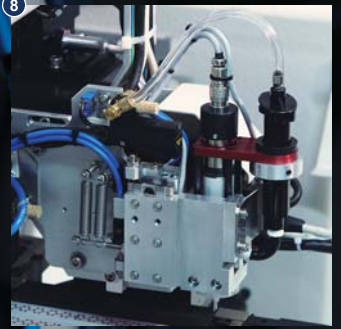
### COMPONENT TEST

Europlacer's component tester is an essential option for customers working in high specification fields, such as automotive, military, medical or aviation. The tester can be independently calibrated against all international standards & institutes. It guarantees you and your customer the statutory performance required when working on demanding applications. Europlacer's electrical test head is mounted inside the machine structure, and does not compromise any platform resources or the feeder count. The head comprises a measuring bridge consisting of four electrodes linked to a flexible circuit, upon which the machine places the components to be measured.

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### DISPENSING

There are two types of dispenser available, allowing the deposition of glue or solder paste within the placement machine, without losing any feeder capacity or placement performance. Mounted directly to the placement head, and therefore benefitting from the same positional accuracy and control, the dispenser provides consistent dots of glue or solder paste directly to the substrate prior to component placement.

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### SPECIAL NOZZLES

The Smart Nozzle concept is simple: it has a unique identity encoded onto the nozzle that verifies that the correct nozzle is being used. Smart nozzles can be quickly set anywhere in the tool banks, removing all possible errors due to an operator placing a nozzle in the wrong position. Where vacuum is not appropriate, and devices require special handling, Europlacer offers a range of adjustable gripper nozzles. And we can design special nozzles around customers' specific applications for any odd-form components.

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### FIXED CAMERA

This high-resolution camera is used to inspect ultra fine pitch components,  $\mu$ BGA, and flip chip devices. It's also used for components larger than the 50mm x 50mm specification of the 'on-the-fly' camera, giving accurate machine vision up to 99mm x 99mm. It can acquire images in single field of view (SFOV) or multiple field of view (MFOV) modes.

### FEEDER SET-UP HELP

Allows the next product to be prepared offline. Using LED indicators, it locates required parts as well as those not required or missing on the programming station and on the feeders. A complete loading plan can be verified before production commences to provide rapid and 'right first time' changeovers.

### WIRELESS COMMUNICATION

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europlacer

# OPTIONS

## FEEDERS

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### FEEDER OPTIONS

Every Europlacer feeder is programmable with component and inventory data. Once a feeder is loaded, this information is automatically recognised by the machine. This streamlines set up and changeover.

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### TAPE TROLLEYS

Each trolley comprises 33 channels and can be equipped with any combination of elements in 8mm, 12mm, 16mm and 24mm tape widths.

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### INTELLIGENT FEEDER CART

Intelligent feeder carts combine the strengths of Europlacer's proven concept of a cart plus elements with key aspects of individual feeder technology. Each individual feeder cart element is fully intelligent, providing the same intuitiveness as the other feeders in the Europlacer range that make the most of our Integrated Intelligence™ platform. With the full range of element sizes available, there are no limits to intelligent feeder cart capabilities.

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### INTELLIGENT TAPE FEEDERS

NT tape feeders are available in double 8mm versions and as single channel units for 12mm to 104mm tape widths.

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### BELT FEEDERS

Used for components in sticks, a belt feeder accommodates SO, SO medium, SO large and TSSOP profile components. The base unit provides 8 stick positions and gives feed rates close to that achieved by tape feeders.

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### AUTO TRAY LOADER

Often called a sequencer, the auto tray loader stores up to 30 trays vertically. Each matrix tray is indexed to the pick-up point as required. Auto tray loaders are simply wheeled into position in the same way as a tape or feeder trolley. Sequencers can be programmed online or offline.

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### MATRIX TRAY HOLDER

A variety of different matrix tray holders can be fitted as standard inside the machine, with no impact on standard PCB dimensions or tape feeder capacity. Capable of accepting up to 10 standard Jedic trays, the holders provide significant capacity for the presentation of QFPs, BGAs, connectors, heatsinks and any other non-taped devices.

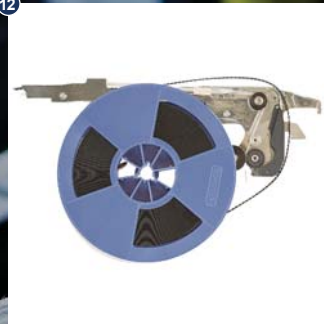
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# FEEDERS

## FEEDERS

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### LABEL FEEDER

Developed in conjunction with a world leader in label delivery systems, Europlacer's programmable feeder provides a solution to applications requiring control and identification of products during and after the manufacture process. Capable of supplying 1D and 2D label formats up to 55mm x 55mm in size, we place the label on any quantity of images within a single panel. For full traceability, the process is completed intelligently by scanning and retaining the product and process information for use in the Traceability option.

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### SOLDER BALL FEEDER

This feeder provides a low cost solution for solder ball assembly. By exclusively using patent protected techniques developed by Novatec France, the feeder enables reliable assembly of solder balls as part of a standard surface mount pick and place process.

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### FLUXER

A critical part of the PoP process is the management of flux deposition. Europlacer's dip fluxer unit is simply positioned into any machine feeder position. It can be variably configured to supply the correct volume of flux depending on the application in progress.

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### BULK FEEDER

For high volumes of non-standard components not supplied in stick or tapes, our bulk feeders can provide the solution. Typically fitted into our standard feeder platform, the bulk feeder solution benefits from Europlacer's Integrated Intelligence™ platform. Flexibility and fast changeovers are maintained with zero impact on the machine's feeder capacity.

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### INTELLIGENT FEEDER TROLLEYS

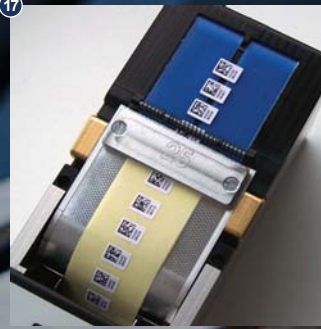
Trolley-mounted feeders provide rapid mass changeover. The trolley holds any combination of tape, belt or vibrating base plate feeders.

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### FEEDER STORAGE UNIT

Feeder storage units can be linked directly to the system's host via RS232 serial link or wirelessly using the Wi-Fi option.

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

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