

0402-0,16 mm
0402-0,2 mm

KE-2070 KE-2080

High-Speed Chip Shooter

High-Speed flexible mounter

Our modular production line for medium-volume throughput sets new standards for productivity, flexibility and reliability.



LOWEST COST
OF OWNERSHIP

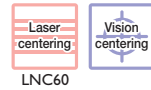
JUKI

From high-speed, high-accuracy mounting of very small parts to handling of odd-shaped parts. Ultra-flexible performance assures the best return on investment for any application



High-speed chip shooter

KE-2070



A chip mounter optimal for high-speed mounting of small parts. With the addition of the optional MNVC, the component range can be increased even more for greater flexibility.

- 16,000CPH: chip (laser centering / IPC 9850)
- 4,600CPH: IC (vision centering with optional MNVC)
- One multi-nozzle laser head (6 nozzles)
- From 0402 (01005) to 33.5mm square components
- Vision centering system (optional, featuring bottom, side, and back lighting, all ball recognition)



High-speed flexible mounter

KE-2080



The best flexible placement system for high-density placements. The ultra-flexible KE-2080 can place a wide range of components from 0402 (01005) and ICs, to odd-form, all at industry leading accuracy and speed.

- 15,400CPH: chip (laser centering / IPC9850)
- 1,850CPH: IC (vision centering / effective tact), 4,700CPH with MNVC option
- One multi-nozzle laser head (6 nozzles) plus one high resolution head (1 nozzle)
- From 0402 (01005) to 74mm square components or 50×150mm
- Vision centering system (featuring bottom, side, and back lighting, all ball recognition and split recognition)

Highly versatile vision system for a wide range of components

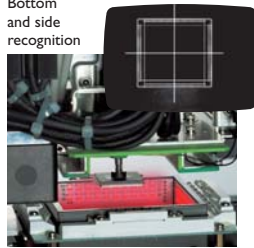
►Flexible

Vision centering technology

Centering method can be selected based on component type, shape, size and material. Laser centering is used for high speed placement of smaller components. Vision is used when lead or ball inspection is needed or when the component is too large for the laser. Many nozzles are available for odd-shaped components providing unsurpassed component handling.

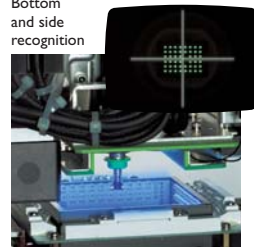


Bottom and side recognition

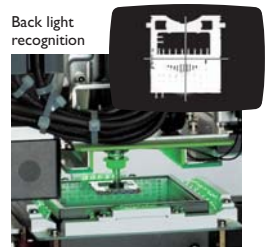


Vision recognition

Bottom and side recognition

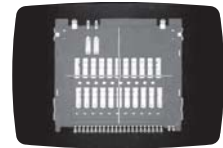


Back light recognition



General Vision

General vision function is used to support a wide variety of today's unusual vision centered components. After programming is complete, the data can be verified by picking and test centering a component.

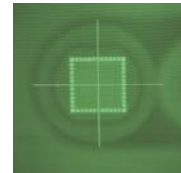
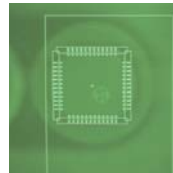


►High speed vision placement

MNVC (Multi-Nozzle Vision Centering)

Vision centering by the multi-nozzle head nearly doubles the placement rate for smaller components, including CSPs, BGAs, and smaller QFPs. (Option)

※MNVC is also available on the KE-2070.

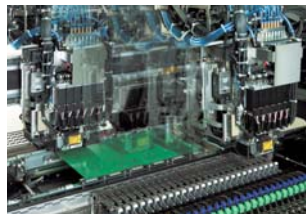


Laser centering technology

►High accuracy, high-speed mounting

High-speed, on-the-fly centering

A high resolution laser is mounted on the head to center components in all directions including angle. Centering is done on-the-fly, allowing high speed placement of components from small chips to SOPs.



►Adaptable centering

Centering accommodates component variations

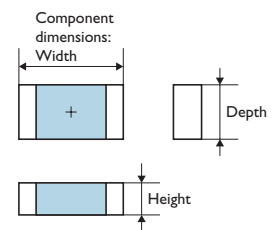
Laser centering measures the components on the side. It is not affected by variations of component color or width / length so, unlike vision centering, there is no need to edit component data for different component vendors.

►Simplified data entry

Ease-of-use improved by automatic component measurement

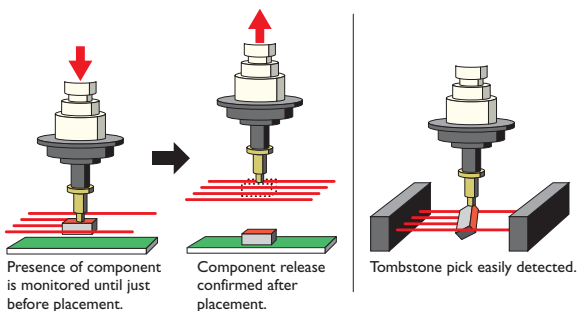
Component data can be completed entering just approximate dimensions, type and packaging information.

The exact dimensions and lead count / pitch are measured by the machine and automatically entered into the component data.

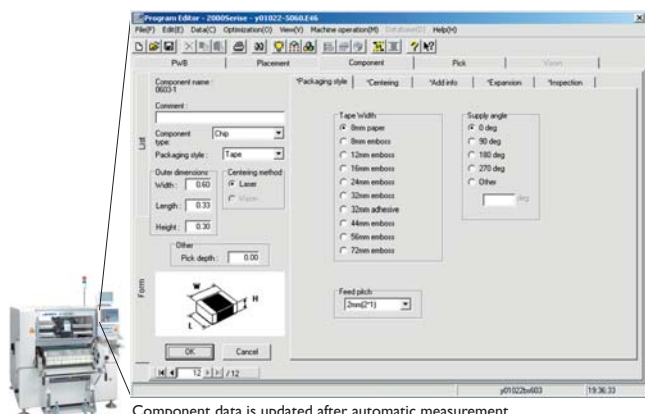


►Low loss ratio

Component check function improves placement reliability



Since the laser is mounted on the head, it can be used to monitor the presence of components the entire time from pick to placement. This is difficult to accomplish with vacuum detection only. The placement reliability is also improved because the release of the component is confirmed after placement.

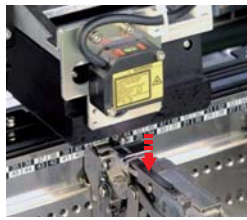


Advanced features

- Fast and easy setup, Low defect ratio

HMS (Height Measurement System)

The HMS is used to quickly and accurately measure the component pick height. A laser sensor measures the distance instantly without any physical contact.



Auto Teaching of Pick Position

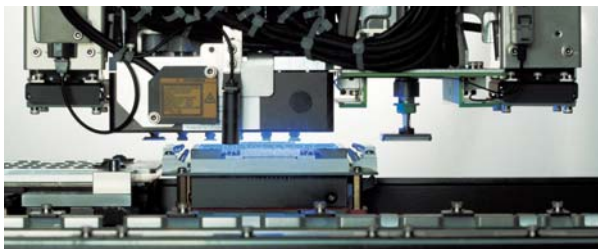
Auto teaching of pick position reduces changeover time and mis-picks.



Available options for a wide variety of needs

- Increased throughput

MNVC (Multi-Nozzle Vision Centering)

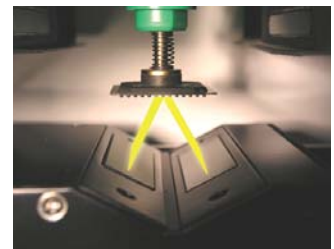


MNVC increases the number of heads capable of placing vision centered parts from one to seven on the KE-2080. This can nearly double the placement rate depending on the component. Highly recommended for boards with a high number of CSPs or other small, fine pitch devices. MNVC is also available on the KE-2070.

- Reduce wasted components

Coplanarity Sensor

Measures true coplanarity for both leaded components and BGAs, reducing the chance of a bad solder joint.



- Flexible

High-resolution Camera

Increases component handling range to include fine pitch CSPs, 0.3mm pitch QFPs and other small devices. 30% higher resolution than the standard camera.



Special-order Nozzles

A wide variety of special order nozzles are available for unusual components, including grippers.



- Fast setup and changeover

Feeder Position Indicator

LED's on the feeder bank indicates which feeder needs to be replaced or which feeder has an alarm, indicates location of feeders to be set during change over, and helps simplify feeder setup.



Rear-side Operation Unit

Allows complete machine operation from the rear side of the machine. (includes monitor; keyboard, and mouse)



High area productivity and wide component range

New laser sensor: LNC60



A 20% improvement in throughput in the same footprint

The new LNC60 laser head is capable of picking and centering 6 components simultaneously. It can reach speeds of up to 16,000 CPH (IPC-9850), a 20% improvement over the previous generation.

A variety of different nozzles can be attached at the same time, decreasing the nozzle change time. With the optional MNVC (multi-nozzle vision centering), the throughput for high accuracy devices is increased a remarkable 35%.

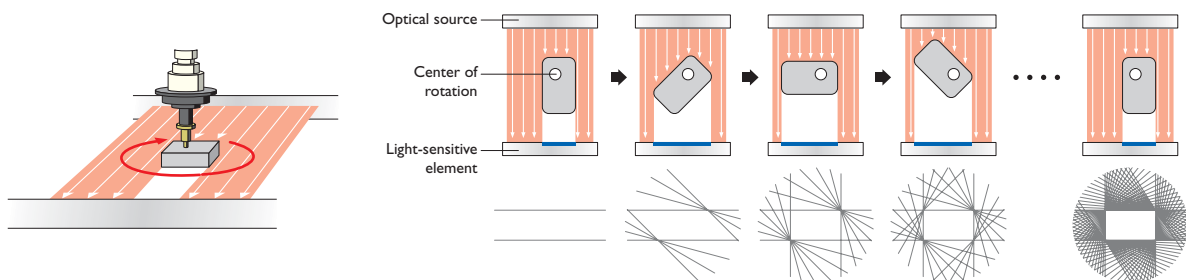
And all of these features are found in a remarkably compact machine for unparalleled productivity.



Unrivaled placement range from 0402 (01005) to 33.5mm square components

The LNC60 brings a new concept in laser centering to the market. This sensor has the unique ability to center components from 0402 (01005) to 33.5mm square parts. From ultra-small, ultra-thin, chip-shaped parts to small QFP, CSP, BGA, a wide range of parts can be mounted by the laser recognition system at high-speed and with high-accuracy.

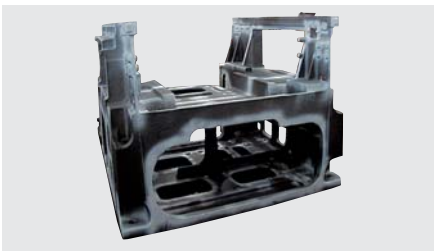
LNC60 A new concept in component centering that is capable of on-the-fly centering of 6 components simultaneously.



Tangential Line Centering™ achieves both a wider component range and higher accuracy all at the same time. The LNC60 accurately measures the component's center, dimensions, and angular correction all in a single sweep. The optical design has been simplified to give higher reliability in a thinner and lighter package.

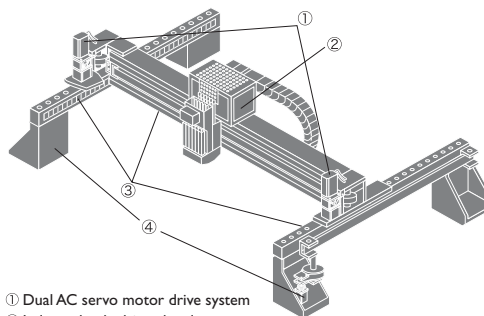
Incomparable stability created by advanced basic design

Ultra-rigid frame



A high-rigidity frame made by cast metal molding integrates the Y axis frame. It has excellent anti-vibration characteristics that support high-speed operation.

Dual XY drive system & independently driven heads



- ① Dual AC servo motor drive system
- ② Independently driven heads
- ③ Linear scale full-closed loop control
- ④ Dual AC servo motor drive system

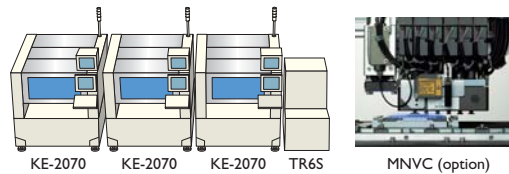
X-Y drive system features JUKI's original «Full closed loop control» using AC motors and magnetic linear encoders. Dual motor drive of both X and Y achieves high-speed, and highly reliable placements unaffected by dust and temperature variations. Independent Z and θ motors improve accuracy and robustness.

Sample production line with FX and KE series

Compact line for small electronics

High density placement / High-speed, highly accurate placement of small components including fine pitch or odd-shaped devices

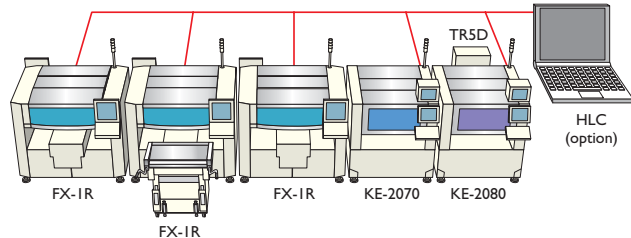
The KE-2070 is ideal for applications with only smaller components. The MNVC option can be easily added to increase the flexibility of the KE-2070 even further:



High speed, general use line

High throughput / Place virtually any SMT component

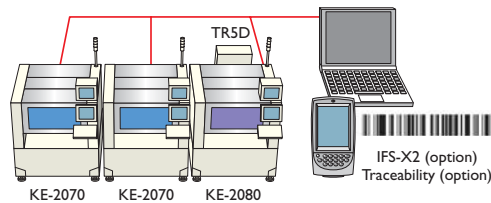
Full-function high speed line with the ability to place all components from small chip to large BGAs, QFPs and connectors. Productivity is maximized using the HLC (Host Line Computer) for line balancing and optimization.



Quality control line for automotive or medical applications

Setup verification / Traceability / Small lot, high changeover production

Designed for situations where verification and product traceability are required. The Intelligent Feeder System (IFS-X2) reduces setup time, improves setup accuracy and prevents various human errors which can cause defective products to be assembled. IFS-X2 is a completely intelligent control system which tracks components from initial receipt through placement. The IFS-X2 system uses the RFID technology for the data transfer between the feeder and the assembly machine / feeder trolley. An option for placement level traceability records the lot number of all components placed on a board by the board's serial number.



A leading supplier worldwide

Juki has now installed more than 17,000 placement systems worldwide, establishing us as one of the top SMT suppliers to the global market. All Juki products are designed to guarantee our customers the absolute lowest production cost (Lowest Cost of Ownership). With outstanding flexibility and high placement rates the new models will again define the new standard for midrange applications, perfectly suited for the European market.

What we mean by Lowest Cost of Ownership

Often when deciding on the purchase of a new placement system, only the initial investment cost and the theoretical placement rate are considered. This overlooks many other factors that make up the overall production cost. Consumables, spare parts and service can be a big cost factor. Such things as changeover times, machine breakdowns and the difference between the theoretical and actual throughput rate significantly affect productivity. Maintenance, programming and operator training account for additional personnel costs. Thanks to their many years of experience building flexible modular placement systems Juki has gained an outstanding reputation. Data from the market has shown that compared to systems from other manufacturers, Juki clearly provides the highest reliability and lowest cost of ownership in the industry.

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