Universal Instruments
A Delta Group Company

FUZION

FUZION PLATFORM

BUILD BETTER. BUILD MORE. SPEND LESS.

For electronics manufacturers who demand an agile production model without limitations, Fuzion® is the industry's most adaptable and capable platform, delivering high productivity for manufacturing models from NPI to ultra-high volumes. Fuzion drives operational excellence, enabling manufacturers to build any product at any time, accelerate new product introduction and ramp to volume, and maximize utilization, quality, and yield.

Fuzion solutions maximize utilization, Overall Equipment Effectiveness (OEE), and productivity while minimizing cost per placement for any product mix. Features include:

- 1 and 2-beam variants
- Throughput up to 66,500 cph per module
- Industry-leading cost per placement, flexibility and accuracy
- Largest board size capability
- Closed-loop processes to ensure the highest yields
- Maximum performance and utilization for any product mix
- Tool set to accelerate NPI and achieve 100% first-pass yield
- Lowest cost of operation and ownership

VIDEO

BENEFITS & VALUE

MAXIMUM EFFICIENCY
Wide overlapping component range between placement heads; Change the program, not the line

VERSATILITY FOR ANY APPLICATION
Standard SMT and non-traditional components up to **150mm** square and up to **40mm** tall; **5kg** placement force

SOLUTIONS FOR ANY ENVIRONMENT
Scalable configurations from NPI to high-volume; From high-speed chip to extreme odd-form

HIGHEST QUALITY & YIELDS
Vertical Part Sensor (VPS) validates part presence, orientation, and thickness; Auto Pocket Teach and touchdown sense improves pick ppm

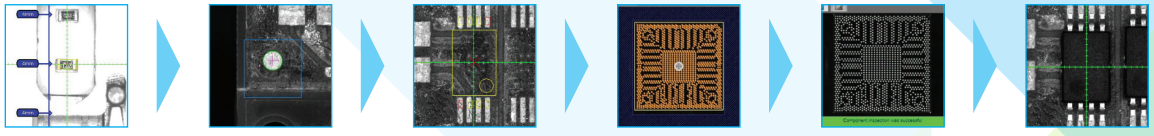
FAST NPI PROCESS
Sequential process for complete board build; Full editing capability in pre-production NPI mode and dynamic on-the-fly editing in full production mode

SUPPORT FOR A VARIETY OF INPUT TYPES
Portfolio of reliable feeding solutions accommodate a range of components and packaging: tape, tray, tube, track, and bowl

FUZION software

FUZION SOFTWARE

- Sequential process for complete board build
- Quickly generate and optimize fiducial, feeder, placement, and component information
- Full editing capability in pre-production NPI mode, and dynamic editing in full production mode eliminate machine stoppages
- Semi-automated solder paste and post-placement inspection



Feeder Inspection | Fiducial Inspection | Pre-Place Inspection | Component Teach | Component Inspection | Post-Place Inspection

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FUZION PORTFOLIO

Fuzion1-11
Versatile IC placement platform perfect for special processes such as Pin-in-Paste, Flip Chip and OFA.

Fuzion1-30
Superb for high-mix NPI environments and large board applications. Also a high-volume line booster.

Fuzion2-14
Best-in-class multi-function platform handling a wide component range for applications requiring flexibility and performance per line length.

Fuzion2-37
True multi-purpose platform: A stand-alone prototyping solution, a flexible line balancer, or a high-performance multi-function solution.

Fuzion2-60
Flexible, high-speed productivity for medium-volume environments. A powerful line booster solution or high-performance small part placer.

Fuzion Specifications

Platform Model	Fuzion1-11	Fuzion1-30	Fuzion2-14	Fuzion2-37	Fuzion2-60
Positioning System	--------- Single-beam linear motor ----------		---------- Dual-beam linear motor ----------		
Placement Heads	7-spindle FZ7™ 4-spindle FZ4™	30-spindle FZ30™	(2) 7-spindle FZ7™	30-spindle FZ30™ 7-spindle FZ7™	(2) 30-spindle FZ30™
Cameras	(2) Upward-looking cameras	On-the-head camera	(2) Upward-looking cameras	On-the-head camera Upward-looking camera	(2) On-the-head cameras
Throughput (cph)	16,500 (Max) 11,400 (1-Bd IPC Chips)	35,000 (Max) 22,600 (1-Bd IPC Chips)	30,750 (Max) 21,750 (1-Bd IPC Chips)	48,000 (Max) 27,500 (1-Bd IPC Chips)	66,500 (Max) 40,500 (1-Bd IPC Chips)
Accuracy (@>1.00 Cpk)	±30µm (Chips) ±20µm (ICs)	±34µm (Chips) ±34µm (ICs)	±30µm (Chips) ±20µm (ICs)	FZ30: ±34µm (Chips & ICs) FZ7: ±30µm (Chips); ±20µm (ICs)	±34µm (Chips) ±34µm (ICs)
Max PCB Dimensions (W x L)	508mm x 813mm	508mm x 1016mm	508mm x 813mm	508mm x 1016mm	508mm x 1016mm
Max Feeder Inputs	120 (2 ULC)	136	120 (2 ULC)	128 (1 ULC)	136
Component Range (mm)	(008004) .25 x .125 (Min) 150 square and up to 25 tall (Max)	(008004) .25 x .125 (Min) 30 x 30 x 6 (Max)	(008004) .25 x .125 (Min) 150 square and up to 25 tall (Max)	(008004) .25 x .125 (Min) 150 square and up to 25 tall Max)	(008004) .25 x .125 (Min) 30 x 30 x 6 (Max)

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