One Machine For All Your Needs.

C 5

The C5 is the ideal placement machine for medium volume manufacturers; especially those with frequent job changeovers. While others claim quick changeover, the C5 really delivers. Its high feeder capacity and fail-safe feeder mounting system gives you the option to load one job while another is running (significantly increasing daily throughput). Operating features that are built into the C5 make it one of the most productive machines in its price range.

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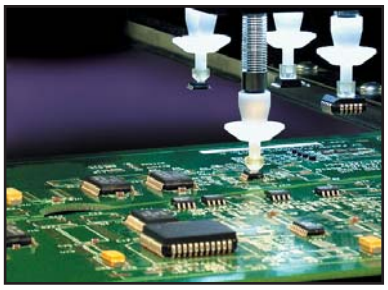
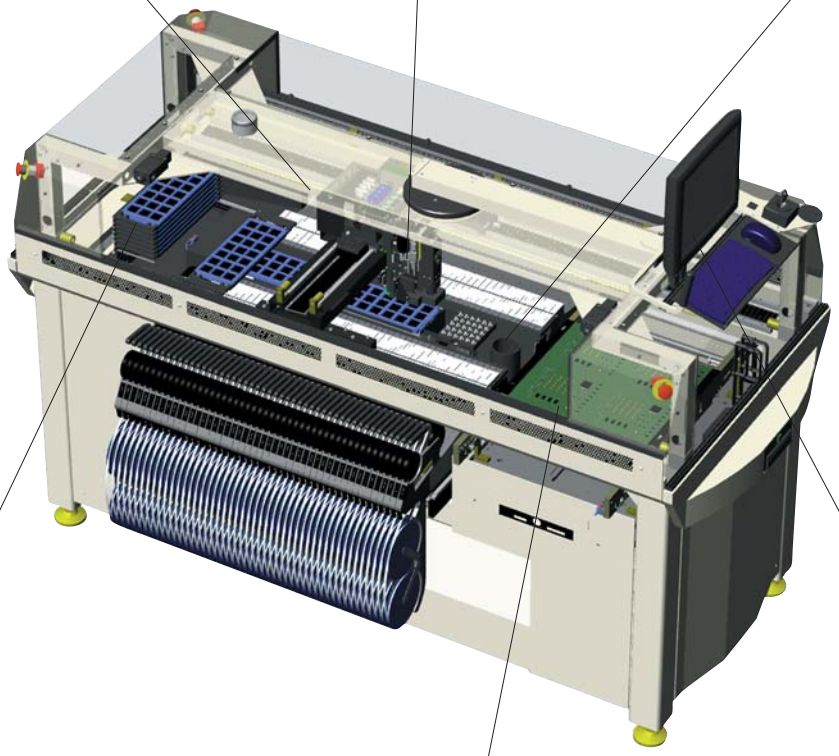
Advanced gantry design uses linear motors and encoders in both the X and Y axes --- Unlike ball screw systems, **linear motors** have zero backlash and require no maintenance....ever.

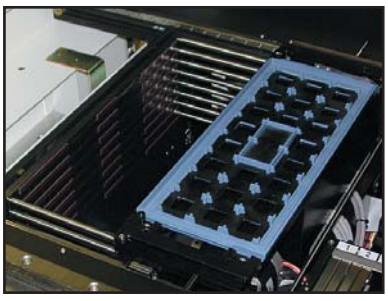


Four spindle head can **place all components** from 0201 to fine pitch QFP's.

Vision camera centrally positioned for **"fly by centering".** Backlighting provides high contrast silhouette component image for robust vision processing.

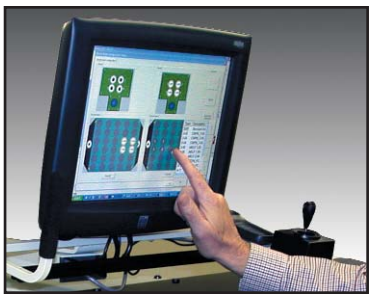


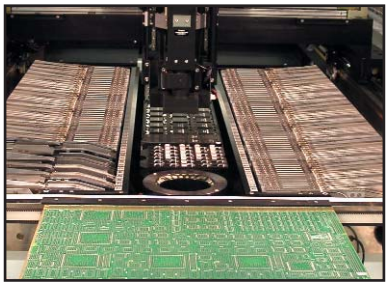
Three matrix trays can be placed within the C5 without loss of feeder capacity, or placement area. The optional **eight tray magazine** mounts within the machine and feeds trays between the feeder banks...also without loss of feeder capacity.



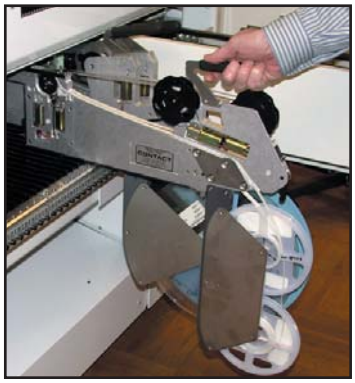
The **internal board conveyor** allows automatic loading and unloading of boards. The C5 comes standard with manually adjustable rails (auto adjusting rails optional).

The **color touchscreen monitor** provides an intuitive user interface. It is mounted on a swing-arm that can be positioned on both sides of the assembly line.



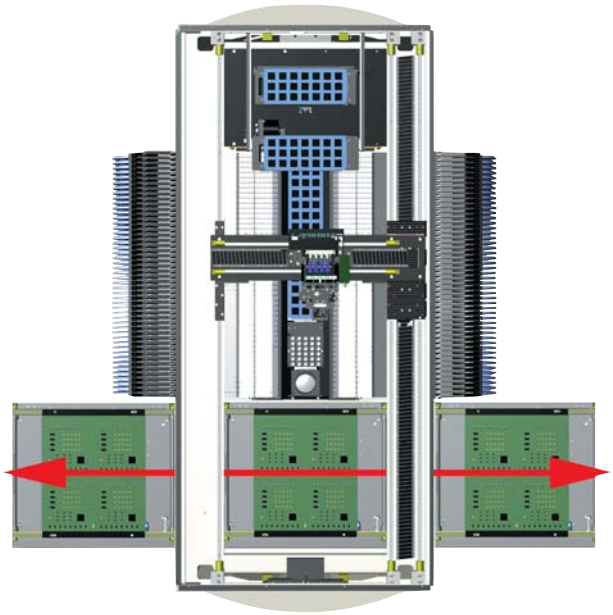


High density feeder banks with **capacity for 192 feeders** (8mm). Total pick area only 22″ x 16″ --- makes feeder location less critical for optimum throughput.



Smart tape feeders eliminate kitting errors. The compact design enables maximum density, and are available for all tapes from 8mm to 56mm.

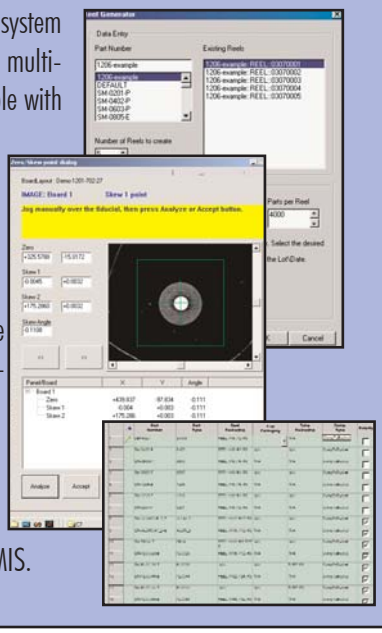
Unique gantry architechture places **both feeder banks on one side of the line** for efficient job setup and component replenishing.



The **air track stick feeders** provide reliable feeding (unlike vibratory feeders), easy track changeover, and easy on-line replenishment.

Software

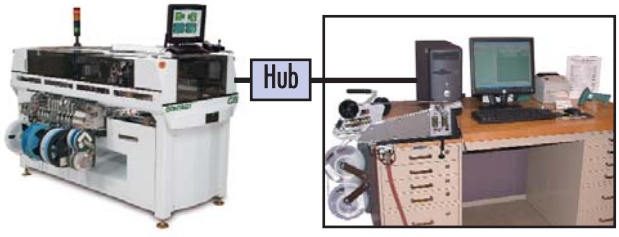
The C5 software is a Windows based system that provides the user with a familiar multi-tasking environment that is compatible with other Windows applications.



Using the Programming Software Module, PCB's are programmed via the standard CAD interface or the Teach method. The Inventory Module keeps track of your component inventory levels in real time. Other standard software features include the Dynamic Run-Time Optimizer, a Comprehensive Component Library, Smart Feeder integration and Basic MIS.

Typical Offline Configuration

The modular nature of the C5 software architecture allows you to network your offline kitting and programming stations for increased productivity. Employ one of the three offline kitting options Easy-Kit, Easy-Scan or Easy-Scan with Traceability for fast and error free job set-up.



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SPECIFICATIONS

Feeder Capacity	192 x 8mm
Number of Heads and Spindles	1 Head, 4 Spindles
Placement Rates (standard camera):	
Maximum	11,250 cph
IPC 9850 0603 (1608[1])	10,140 cph
IPC 9850 SOIC16	6,000 cph
IPC 9850 QFP100	3,161 cph
Component Range	
Standard Camera	0201 (0603[1]) to 50mm (1.97") square, 13mm high (17mm w/special nozzle)
Minimum Lead Pitch (Fine Pitch)	0.3mm / 12mil
Minimum Ball Size Diameter (micro BGA)	0.3mm / 12mil
Placement Accuracy	
0402 (0603[1]) - 0603 (1608[1])	0.075mm / 3σ
0805 (2012[1]) - 1206 (3016[1])	0.055mm / 3σ
>1206 (3016[1])	0.045mm / 3σ
Fine Pitch 0.3mm - 12mil	0.040mm / 3σ
BGA Ball Size 0.3mm - 12mil	0.040mm / 3σ
Board Size	
Minimum	55mm (2.2")
Maximum	400mm x 460mm (15.7" x 18.1")
w/Large Board Option	762mm x 460mm (30" x 18.1")
Thickness	8mm (0.315") clearance (i.e. 6mm thickness + 2mm warp)
Clearance below PCB	20mm (0.787")
Edge Clearance for conveyor	4mm (0.157")
Conveyor Type	Single stage; left to right, or right to left travel direction (configurable)
Conveyor Height	900mm (950mm SMEMA optional)
Nozzle Changer	8 nozzles, standard; 30 maximum
X\Y Axis Motors & Measuring System	Linear Motors and touchless Linear Encoders with 5μ resolution
Z Axis Motors	DC Servo Motors (4 per head) with 18μ resolution
Rotation (Theta) Motors	DC Servo Motors with .005° resolution
Alignment Method	100% vision alignment on the fly with full lead/ball inspection
Camera Type	CCD
Lens Type	Telecentric
Lighting	
Standard	Strobe backlighting
Optional	Strobe frontlighting for bottom leaded devices, i.e. BGA's/micro BGA's
Facility Requirements	
Depth	2,300mm
Width	1,650mm (with feeders)
Height	1,828mm (with status light)
Weight (without feeders)	1588 kg / 3500 lb.
Electrical connection	208 V, 3 phase 50/60 Hz / 20 Amps (25 Amps for C5d)
Compressed air supply	6 bar (85 PSI), 7 CFM clean, dry, oil free, filtered 2 mm
Environment	15-25°C, 50-70% relative humidity

[1] *Metric equivalent for English part types.*

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