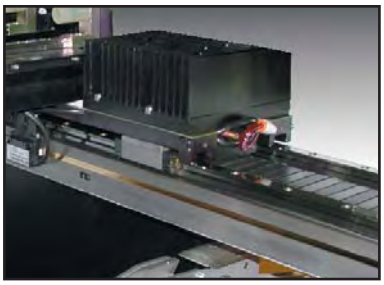
Fast and Flexible.

C5d

The C5d is ideal for medium/large volume manufacturers. Unlike most competitive high speed machines, the C5d can place a full range of components, thus it is both a flexible machine and a "chip shooter". Built on the C5 platform, the C5d incorporates two beams and two 4-nozzle placement heads. While its 22,000 cph maximum placement rate is impressive, its actual throughput on production boards is even more so. That's because with dual beams, while one head is picking, the other is placing, virtually non-stop. Although competitive single beam machines may yield high placement rates on test boards, their actual throughput on production boards is significantly less, because while they are gathering components, no placements are happening.

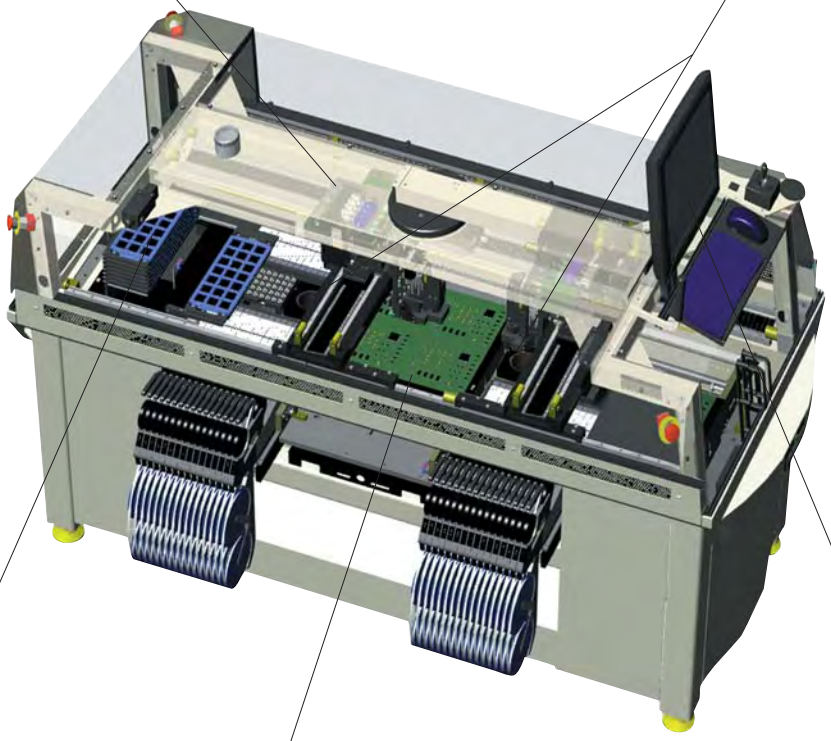
CONTACT

CONTACT SYSTEMS INC.

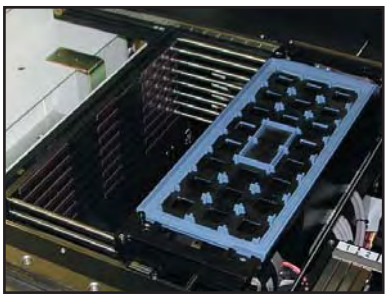


Advanced gantry design uses linear motors and encoders in both the X and Y axes --- Unlike ball screw systems, **linear motors** have zero backlash and require no maintenance....ever.

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

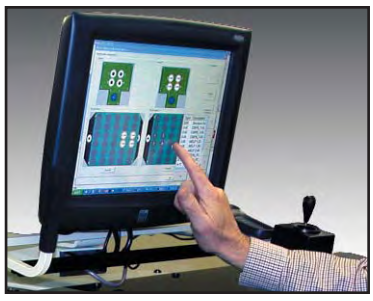


The optional **eight tray magazine** mounts within the machine and feeds trays between the feeder banks without loss of feeder capacity.



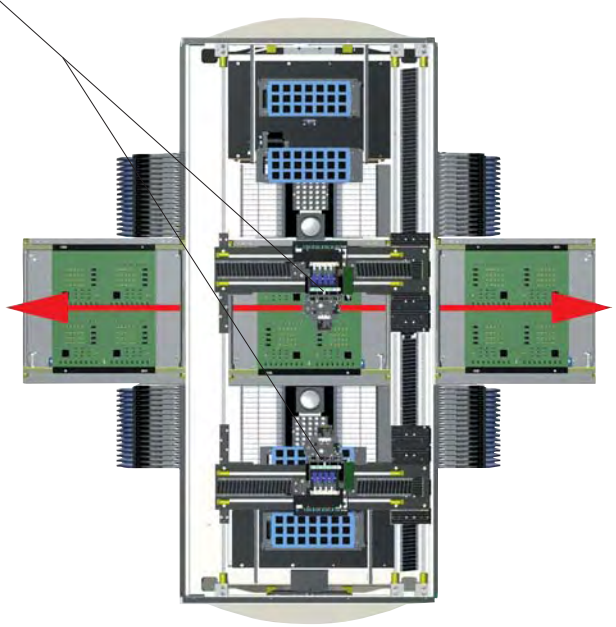
Auto-centering conveyor positions the board at the center of the placement area so the picking head is unimpeded by the placing head, thus assuring non-stop placements.

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.



Both four spindle heads can **place all components** from 0201 to fine pitch QFP's.

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

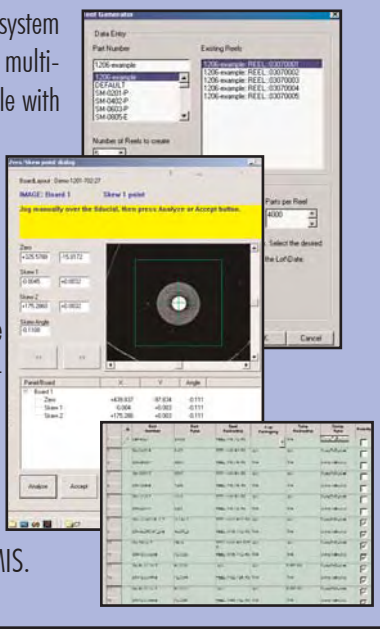


C5d shown with optional input/output conveyors

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

Software

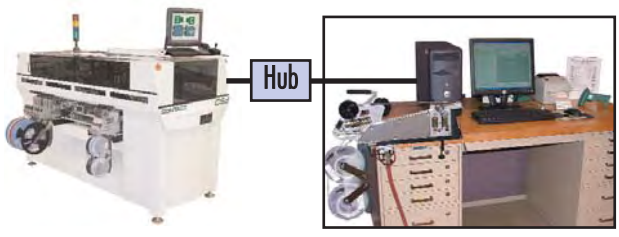
The C5 software is a Windows based system that provides the user with a familiar multi-tasking environment that is compatible with other Windows applications.



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.



CONTACT C5d

SPECIFICATIONS

Feeder Capacity	128 x 8mm
Number of Heads and Spindles	2 Heads, 8 Spindles
Placement Rates (standard camera):	
Maximum	22,000 cph
IPC 9850 0603 (1608 [1])	17,100 cph
IPC 9850 SOIC16	9,600 cph
IPC 9850 QFP100	5,058 cph
Component Range	
Standard Camera	0201 (0603 [1]) to 50mm (1.97") square, 13mm high (17mm w/shorter nozzle)
Minimum Lead Pitch (Fine Pitch)	0.3mm / 12mil
Minimum Ball Size Diameter (micro BGA)	0.3mm / 12mil
Placement Accuracy	
0201 (0603 [1]) - 0603 (1608 [1])	0.075mm / 3 σ
0805 (2012 [1]) - 1206 (3016 [1])	0.055mm / 3 σ
>1206 (3016 [1])	0.045mm / 3 σ
Fine Pitch 0.3mm - 12mil	0.040mm / 3 σ
BGA Ball Size 0.3mm - 12mil	0.040mm / 3 σ
Board Size	
Minimum	55mm (2.2")
Maximum	400mm x 460mm (15.7" x 18.1")
w/Large Board Option	600mm x 460mm (23.6" 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	16 nozzles, standard; 30 maximum
X\Y Axis Motors & Measuring System	Linear Motors and touchless Linear Encoders with 5 μ resolution
Z Axis Motors	DC Servo Motors (4 per head) with 18 μ 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 / 25 Amps
Compressed air supply	6 bar (85 PSI), 10 CFM clean, dry, oil free, filtered 2 mm
Environment	15-25°C, 50-70% relative humidity

[1] Metric equivalent for English part types.

CONTACT