



# SIMPLIMATIC AUTOMATION

Keep it smart. Keep it simple.

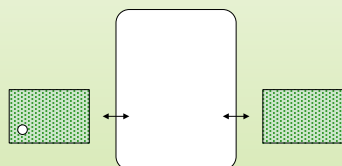
## Board Inverter Model 3050

*The Model 3050 Board Inverter is capable of rotating product 180° about a horizontal axis. The system can also pass product through without inverting; accept, invert, and discharge from the same side; or invert and pass. Invert cycle time is approximately 4 seconds.*



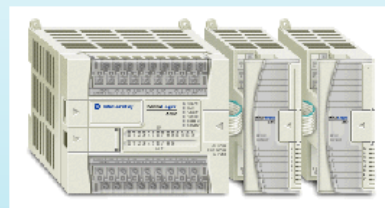
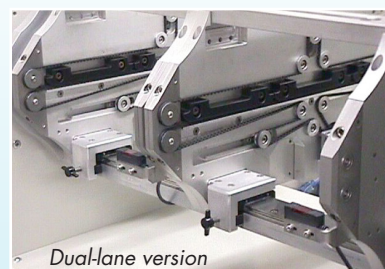
### STANDARD FEATURES

- Servo invert mechanism
- High-speed DC stepper motor conveyor
- One-piece, machined aluminum carriage plates
- Hand crank width adjust
- Zero-backlash invert mechanism
- Bidirectional conveyor



### ADDITIONAL BENEFITS

- Closed Loop Servo controlled invert system and independently adjustable shock absorbers allow the user to fine-tune the invert speed and stop location.
- Dual belt drive system holds product from the top and bottom, ensuring the product is successfully transferred and safely inverted.
- Zero-clearance edge guides eliminate the danger of boards becoming jammed under the edge guide.
- Standard Allen-Bradley controller system can be expanded to include network capability.
- Optional powered width control feature allows the operator to specify an exact conveyor width by entering it via IDEC HMI.



### TYPICAL APPLICATIONS

- In-line transition from top side to bottom side manufacturing
- Flip and return for islands of automation, such as conformal coating
- We welcome custom applications



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### CONSTRUCTION

The Board Inverter utilizes Simplimatic's trademark sandwich construction, which creates a very rigid machine package by securing large aluminum frame members and load-bearing vanity covers between two 3/8" thick steel top and bottom plates. The result is a very strong, precise, modular frame. The conveyor assembly features ESD belts, DC stepper motors, and a sliding belt take-up.

### MAINTAINABILITY

Aside from general cleaning and occasional belt replacement, the Board Inverter is maintenance-free. A sliding electrical panel, large Lexan access cover, and quick-release vanity covers provide maximum access to the interior of the machine.

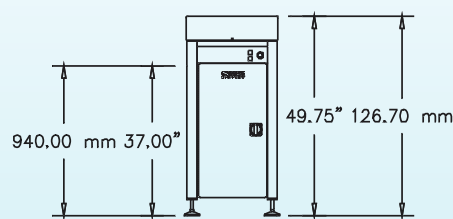
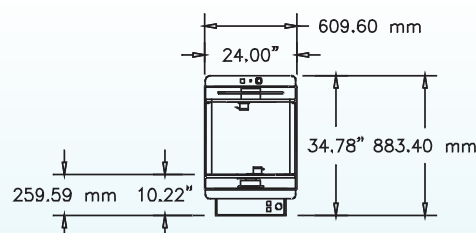
### SAFETY

Transfer openings are limited in size and potential hazards are marked with SEMI-approved labels. Emergency stops are located in the front and rear of the machine. Machine status lights and audible alarm are standard

### AVAILABLE OPTIONS

- Power Width Control – motorized conveyor width, set with thumbwheel indicator. Ideal for high-mix environments.
- Dual Lane Conveyor – adds second lane for increased throughput.
- Tooled Width Adjust – secures adjustable rail with tooled brackets. Lowers cost and works well in low-mix production.
- Large frame version – increases capacity to 18" x 24" board (450mm x 600mm).
- Belt Width – 3mm or 5mm.
- CE compliance – addresses electrical filtering, frame grounding, and other CE requirements.

### SPECIFICATIONS



### BOARD HANDLING CAPABILITY

SMEMA 1.2 Compliant

|                          |   |
|--------------------------|---|
| Circuit Board Length     | 3" (76.2mm) to 20" (508 mm)   |
| Circuit Board Width:     | 2" (50.8mm) to 18" (457.2mm)  |
| Circuit Board Thickness: | 0.010" (0.254mm) to 0.125" (3.175mm)  |
| Allowable Warpage/Sag:   | 0.007 inch per inch, .125" max.   |
| Edge Clearance:          | Requires a clear area of 5mm (0.197") on the front and rear edges of the bottom surface of the board (3mm optional) |
| Component Clearance:     | 2" (50mm) above and below the conveying surface   |

*Note: Consult factory on PC boards with cutouts, or boards with an aspect ratio where the width is greater than the length, and on boards with specifications outside those listed above.*

### FOOTPRINT

|   |              |
|---|--------------|
| L | 24" (60cm)   |
| W | 35" (87.5cm) |
| H | 50" (125cm)  |

### FACILITY REQUIREMENTS

Power 110 VAC, single phase, 10A

### Corporate Office

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Simplimatic Automation has been a leader in material handling systems since 1965. The company is part of the Simplimatic Engineering Holdings family of companies, which also includes Advantage Puck Technologies.