Select Coat® SL-940 Series

Powerful Process Control for Conformal Coating

Features and Benefits

- Integrated process controls ensure high-quality wet dispense performance
- Automated batch or in-line processing
- The modular design accommodates future production needs
- Easy Coat® software – allows programmers to set, measure, record, and trace process parameters
- Offline and online programming
- Choose from a wide range of options – to improve statistical process control, production uptime, and yield
- Downdraft air management system safely removes VOCs – meeting Low Flammable Limits (LFL) standards
- Designed for easy maintenance – stainless steel surfaces are easy to clean and resistant to strong agents

Nordson ASYMTEK’s Select Coat SL-940 Series conformal coating system is designed to provide the highest quality and productivity for automated batch or in-line processing. The system’s robust feature set is built upon ASYMTEK’s unmatched industry expertise in fluid dispensing and conformal coating process control. The result is a coating solution that simplifies the complexities of conformal coating while elevating the art of coating complex surfaces.

The SL-940 standard system features a batch-style configuration that includes a PCB/frame holder for single part- and batch-coating applications. The system can carry up to three applicators and you can choose from a variety of additional options to upgrade the SL-940 into a fully automated in-line solution.

The feature-rich, Easy Coat software is specifically designed for conformal coating applications – process parameters are set, measured, recorded and traceable. Process history for all control parameters can be maintained in log files. Creating programs using ASYMTEK’s optional vision system further simplifies the process and the optional pattern recognition software can automatically align the part and check for skip marks.

Options that provide higher levels of statistical process control are also available. Fluid and air pressure can be set and monitored through software-controlled electronic valves. Options such as Laser Fan Width Control, Viscosity Control, Bar Code readers, and Flow Monitoring can be added to further maximize production uptime and yield.

Product handling options can be added to optimize equipment performance to support your requirements. The standard SL-940 configuration allows you to integrate your own custom handling. Other options include batch tooling or single- or dual-lane conveyor systems with choice of regular or heavy-duty capabilities.
Select Coat® SL-940 Series Specifications and Facility Requirements

**Motion System**

Type: Closed-loop servo motors with encoders

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tbody>
<tr>
<td>X-travel</td>
<td>500 mm</td>
</tr>
<tr>
<td>Y-travel</td>
<td>525 mm</td>
</tr>
<tr>
<td>Z-travel</td>
<td>100 mm maximum</td>
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</tbody>
</table>

Encoder Resolution: 0.005 mm (0.0002 in.)

X-Y Velocity: 1.0 m/s (39.4 in./s)

X-Y Acceleration: 1 g peak with S-curve jerk control

Z-Axis Velocity: 250 mm/s (10 in/s)

X-Y Resolution: 0.025 mm (0.001 in.), 3 sigma

Z-Axis Resolution: 0.025 mm (0.001 in.), 3 sigma

Positional Accuracy: 0.075 mm (0.003 in.), 3 sigma

**Dispense Area**

Dependent upon system configuration. Contact Nordson ASYMTEK for specifics.

**Conveyor**

In-line: Standard chain conveyor

Motor driven width adjustment: 35 to 475 mm (1.4 to 18.7 in.)

Maximum clearance: 100 mm (4 in.) above and below PCB

Maximum pallet/PCB weight: 5 kg (11 lbs.) [Optional: 7 kg (15 lbs.)]

**Adjustable Tooling Rails**

Aluminum extrusion profile: The rail spacing is adjusted by moving the back rail

Width adjustment: 35 to 475 mm (1.4 to 18.7 in.)

Maximum clearance: 100 mm (4 in.) above and below PCB

Maximum pallet/PCB weight: 7 kg (15 lbs.)

Tooling plate is also available: Aluminum; 5 mm (0.2 in.) thickness; 508 x 508 mm (20 x 20 in.)

**Computer**

Computer: Laptop computer

**Software**

User environment: Easy Coat® software

Operating system: Windows® 7 software

**Fluid Delivery Methods**

**Precise Non-Atomized Conformal Coating Application:**

Select Coat® SC-104/105 film coater (heated, circulating)

Select Coat® SC-204/205 film coater (non-circulating)

Select Coat® SC-280 film coater (circulating and non-circulating)

**Versatile Coating in Three Modes:**

SC-200 Swirl Coat® applicator

SC-300 Swirl Coat® applicator

**Highly Selective, Precision Jet Coating:**

SC-400 PreciseCoat® jet

**Versatile Valves:**

DV-0x series

**Facilities Requirements**

**System footprint:**

1000 mm width x 1329 mm depth (39.3 x 52.3 in.)

Computer keyboard/monitor occupy additional 527 mm (20.7 in.) in the front

Lower door requires 855 mm (33.7 in.) clearance to open in the front

1000 mm clearance in the rear is recommended

Dimensional diagrams on next page.

**Air supply:**

620 kPa (90 psi, 6.2 Bar), up to 0.34 m³/min (20.4 m³/hr 12 SCFM) max depending on configuration

**Ventilation, air:**

340 m³/hr (200 SCFM) @ 25.4 mm (1.0 in.) water column

Optional, nitrogen source: 410 kPa (60 psi, 4.1 Bar) @ 0.014 m³/min (0.84 m³/hr 0.5 SCFM); required for moisture sensitive materials

Main power: 200/240 VAC, 10 A (max), 50/60 Hz

**Note:** System can run on 120 VAC without heater option installed.

**Noise:**

Peak ≤ 76.0 dBA; Average ≤ 70.7 dBA

**System weight:**

426 Kg (940 lbs.) max

**Standards compliance:**

SMEMA, CE, NFPA, and SEMI

**Standard Features**

Applicator fluid and air pressures are software-controlled

Solvent-purge station with cups

Door interlock controls

Downdraft ventilation with redundant safety vent switch

Stainless steel interior

Front access hatch with glass

Computer arm adjustable in height and right/left orientation

Easy Coat software

**Featured Options**

Bar code recognition system, 1D or 2D

Black light

Board presence sensor

Dual-simultaneous applicator capability

Dual-simultaneous programmable pitch

Dual-toggle applicator capability

Flow meter

Laser Fan Width Control (for SC-104/105, -204/205, and -280)

Laser pointer programming tool

Fiducial find camera

Solvent cup with fluid level sensor

Low fluid sensor

Low fluid scale

Material change over (manual)

Pre-queue board station

Programming camera

Four-position tilt (for SC-300 and -400)

Fifth-axis tilt (for SC-104/105, -204/205, and -280)

Light beacon

Factory Information System (FIS): contact your sales representative
Select Coat® SL-940 Series Dimensions

Dimensions are in millimeters

Specifications and dimensions subject to change. Contact Nordson ASYMTEK for more detailed drawings if required.

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