

# SC-400 PreciseCoat® Jet

## Highly Selective, Precision Jet Coating

### Features and Benefits

- Fine, smooth lines are generated through the use of shooting-on-the-fly technology available in Easy Coat® software
- Reaches locations not possible with other applicators
- Dot sizes down to 1.2 mm (0.05 in.)
- Thin film builds down to 15 µm – with solvent based materials
- Fast, up to 500 mm/sec (20 in./sec)
- Easy to disassemble and maintain
- Optional Needle Sensor module – verifies needle tip location
- Optional Four-Position Tilt adapter – features the standard vertical position and tilts the applicator at 30 degrees in four positions
- Available in Dual-Simultaneous configurations – coating process time is reduced by 50%
- Available in a Prime Viscosity Control configuration – heated fluid system

The Core and Prime SC-400 PreciseCoat® Fluid Systems are ideal for applying coating materials to highly selective areas. The applicator is designed for coating small substrates, substrates with high-component density, and situations where there are tight tolerances between coated and uncoated areas.

The needle design with jetting action and fast pulse-width modulated control allow the SC-400 jet to reach locations that cannot be accessed by other applicators. Small volumes and better material control deliver line widths down to 1.2 mm (0.05 in.) wide. The need for masking is eliminated because the flow is so closely controlled.

Easy Coat software creates process synergy between the unique applicator and platform design by providing routines and validation steps to define the optimal start and stop points during production.

This allows coating materials to be consistently applied to the exact programmed locations.

Multiple dot sizes can be delivered from the same applicator, yielding small volumes with good volume control. The SC-400 also allows for clearance above large components on a board, and its performance is virtually unaffected by warped substrates.

The Core SC-400 fluid system includes one 1-gallon fluid reservoir, one applicator, two manual pressure regulators with gauges, and one box of needles. To optimize the Prime SC-400 fluid system for your production, you have a choice of two fluid reservoirs of either 1- or 5-gallon capacity. One applicator and three boxes of needles are included. With the Prime fluid system, fluid pressure is controlled by two E/P regulators through Easy Coat software.

The SC-400 applicator is available for use with the Select Coat® SL-940 conformal coating system.



SC-400 Applicator

## SC-400 *PreciseCoat® Jet Specifications*

### General Specifications

For use on Nordson ASYMTEK conformal coating systems

Operation: electrically controlled, air open, spring close

Valve pressure: 413 kPa (60 psi) minimum

Weight: 500 g (1.1 lbs.)

Typical fluid dispense pressure: 21 to 345 kPa (3 to 50 psi)

Maximum/minimum needle length: 13 mm (0.5 in.)/6 mm (0.25 in.)

– contact factory for other needle lengths

Coating velocity: up to 500 mm/sec (up to 20 in./sec)

Pulse Width Controller, integrated to coating platform

Pulse controlled by Easy Coat® software

### Application Parameters

Tested chemistries: acrylics, silicones, urethanes, UV-cure, water-based

Tested materials viscosity range: 0 to 850 cPs

For higher viscosities, contact the factory

Maximum deposition speed: 500 mm/sec

Dot size down to: 1.2 mm ± 0.06 mm

### Featured Options

Needle Sensor module – accurately positions the needle tip to provide closed-loop needle tip positioning

Four-Position Tilt

Dual-Simultaneous Programmable Pitch

### Prime Viscosity Control Fluid System

The SC-400 is also available with a heated circulating fluid system that maintains a constant fluid temperature so that viscosity is unaffected by ambient temperature changes. Programmers define the process temperature and the corresponding process limits in Easy Coat software. If the fluid temperature moves outside the defined process limits during production, the system triggers an alarm condition and operators can intervene to prevent potential errors.



Optional Needle Sensor Module

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## Dual Simultaneous – Additional Benefits

With the dual-simultaneous configuration, the SL-940 system can coat two parts (multiple-up) at the same time. Processing two parts in parallel significantly improves the throughput, while maintaining high yield. The actual conformal coating process time is reduced by 50%, so that throughput performance can be significantly increased – especially when conducting a high takt time conformal coating process with few overhead movements.

Two of the same applicators are installed and operate simultaneously. When there is no need for simultaneous conformal coating, Easy Coat® software allows the programmer to disable the second applicator and set the pitch as part of the programming.

- Coat two parts at once – reducing overall cycle time
- Enable the second applicator as needed
- Fully adjustable pitch



Dual-Simultaneous Programmable Pitch

## Four-Position Tilt – Additional Benefits

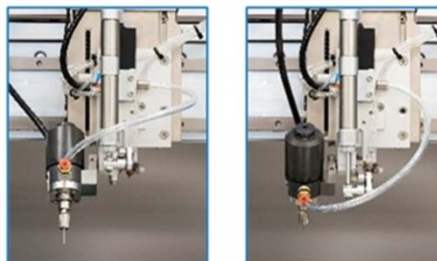
The four-position tilt option features the standard vertical position and tilts the applicator at 30 degrees in four positions: right, left, forward, and backward in 90 degree increments. This option provides enhanced versatility in droplet dispensing and is controlled through Easy Coat software. Programmers can set and modify specific tilt and rotate parameters for each coating element.



Vertical

Tilt Right

Tilt Left



Tilt Forward

Tilt Backward

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