

Select Coat® SC-280 Film Coater

Precise Non-Atomized Conformal Coating Application

Features and Benefits

- High coating velocity up to 750 mm/sec
- With a transfer efficiency of virtually 100 percent, the Film Coater applicator improves conformal coating utilization by 30-50 percent
- The non-atomized design minimizes common problems such as over-spray, masking, and rework
- Wet coating thicknesses range from 125 to 750 μm (0.5 to 3 mils) for solvent-based materials and 0.1 to 0.2 mm (4 to 8 mils) for 100-percent solid materials
- Stainless steel fluid path – compatible with a variety of conformal coating materials
- Easy maintenance and setup routines
- Simple conversion between non-circulating and circulating configurations – to meet future production needs
- The standard Fourth Axis provides a 0 – 90 degree rotation of the fan pattern
- Optional Fifth-Axis Tilt accessory increases accessibility to tight or difficult-to-reach areas by providing four tilted positions
- Available in a Dual-Simultaneous configuration – reduces coating process time by 50%
- The SC-280C heated, circulating fluid system provides closed-loop temperature control and allows viscosities to remain independent of the ambient environment



SC-280N Film Coater with Fourth Axis

The SC-280 Film Coater Fluid Systems optimize throughput and increase yield by delivering high velocity, excellent edge definition, improved response time and on/off rates, and the ability to use a variety of coating widths. When combined with the SL-940 Prime Process Controls option, the SC-280 Prime fluid system can utilize multiple fan patterns within one program.

Easy Coat® software creates process synergy between the applicator and platform design through routines and validation steps that are used to define the optimal start and stop points during production. The film coater provides automated, selective application of conformal coating materials with viscosities less than 100 centipoise. Programmable applicator modes – spots, lines, and area coverage – provide powerful coating results. The SC-280 ensures a consistent fan pattern – even after idle – through the unique design that circulates heated fluid through the applicator extension maintaining a consistent nozzle

temperature at all times. 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.

To optimize the Prime SC-280N and SC-280C Film Coater Fluid Systems for your production, you have a choice of two nozzles and two fluid reservoirs of either 1- or 5-gallon capacity. Fluid pressure is controlled electronically through Easy Coat software. The SC-280N and SC-280C programmable fluid pressure is contingent on the optional Prime Process Controls.

The SC-280N Film Coater Fluid System is also available in a Dual-Simultaneous configuration.

The SC-280 applicators are intended for use with the Select Coat® SL-940 conformal coating system.

Select Coat® SC-280 Film Coater Specifications

Film pattern width: 6 to 19 mm (0.24 to 0.75 in.)

Masking required: no

Material viscosity: under 100 cPs

Application thickness:

Solvent-based materials: 10 to 76 µm (0.0004 to 0.003 in.)

Edge tolerance: ±0.75 mm (± 0.03 in.)

Transfer efficiency: over 99%

Coating velocity: up to 750 mm/sec (up to 30 in./sec)

Typical fluid dispense pressure: 100 to 410 kPa (15 to 59 psi)

Body Material: stainless steel, 300 series

Model N: non-circulating

Model C: circulating, used with heated viscosity control system

SC-280N and SC-280C: U.S. Patent 9,346,074

Featured Options

Fifth-Axis Tilt

Laser Fan Width Control

Dual-Simultaneous Programmable Pitch



SC-280 Film Coater with optional Fifth-Axis Tilt



SC-280C Film Coater

Fifth-Axis Tilt – Additional Benefits

Fifth-axis tilt allows the film coater nozzle to be rotated and tilted to access hard-to-reach areas of the product that may not be achievable with the standard downward approach (0 degrees). Programmers can easily set and modify the rotate and tilt parameters for an applicator within Easy Coat® software.

- Ideal for coating vertical surfaces and underneath components
- The nozzle can tilt at 30 degrees, and the mechanism can be rotated in 4 positions – in 90-degree increments (0, 90, 180, and 270) to direct the fan pattern to the left, right, front or back to coat all four sides of a component
- The nozzle is fully integrated into the applicator assembly and can be installed horizontally for a narrow coating pass when it is tilted or vertically to achieve vertical area coverage
- Tilting of the nozzle as opposed to tilting the entire applicator eliminates the need for a direct line of sight and provides optimal agility during the conformal coating process

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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 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

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