



# SCS PRECISIONCOAT VI



  
SPECIALTY COATING SYSTEMS™  
A NISCO Company  
PrecisionCoat VI



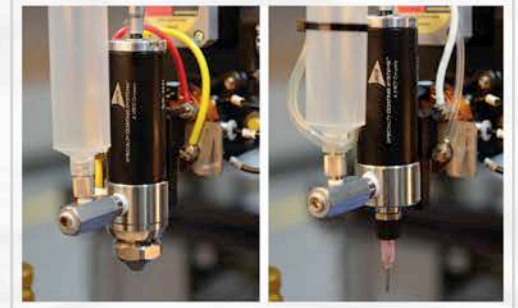
**SCS**

## SCS PRECISIONCOAT VI

The PrecisionCoat VI selective conformal coating and dispense system is a fully programmable, multi-purpose system that offers unparalleled programming for efficiency in automated material applications. Customers rely on the PrecisionCoat to precisely apply a wide range of materials, including 100% solids, solvent-based and water-based coatings. Building upon the outstanding reliability and precision of its predecessor, this robust and highly flexible platform offers manufacturers the unmatched efficiency and accuracy they have come to expect for conformal coating, dispensing and/or potting applications.

The PrecisionCoat's standard configuration applies materials via a direct-drive, three-axis system with accuracy of 0.001 inches; fully programmable fourth and fifth axes can also be added for tilt and rotate functionality. The system's proprietary Windows®-based software platform features a user-friendly interface for ease of programming and system operation. Users can customize each coating profile based on material and pattern to achieve consistent application with a high degree of accuracy and repeatability. Additionally, convenient offline programming ensures downtime is kept to a minimum.

SCS material application valves deliver exceptional material handling in a modular configuration, bringing flexibility to projects without sacrificing quality or performance. For added control, SCS' spray valve design goes above and beyond traditional designs by integrating custom spacers to "micro" adjust the space between the air cap and material nozzle, allowing for greater variation and control of the spray pattern and edge definition. SCS valves also incorporate a micrometer for needle positioning to precisely control material flow after maintenance.



### KEY FEATURES AND BENEFITS

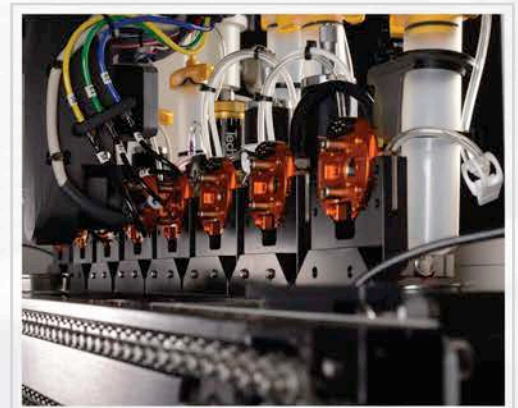
- High accuracy and repeatability
- Servo motor position control
- Windows®-based software control with user-friendly interface
- Ease of programming
- Profile sharing between multiple coating systems; including previous PrecisionCoat models
- SCS designed valves
- Multiple dispensing and mixing solutions
- Interior LED lighting
- SMEMA transfer protocols
- Batteryless absolute encoders

### OPTIONAL FEATURES

- 5 axes programmable tilt and rotate
- Automatic Quick Change with up to 8 configurable tools
- Vision system
- Teaching camera
- Coating flow meter
- Needle calibration
- Purge cups
- Auto-width conveyor
- Programmable valve spacing
- Programmable spray pressure
- Programmable pot pressure
- Programmable syringe pressure
- Second board stop (29 inch boards)
- Laser height sensing
- Valve on/off during continuous motion
- Black LED inspection light
- Variety of pumping systems available
- Metered dispense weight scale
- Material level weight scale
- Adjustable rail
- UV spot cure

### AUTOMATIC QUICK CHANGE (AQC)

The PrecisionCoat's Automatic Quick Change (AQC) feature allows the use of eight separate tools within a single machine depending on the system and valve configuration. In standard systems, using multiple valves on the same machine limits head travel, which reduces the overall work envelop of the system. With the new PrecisionCoat VI, the AQC feature allows customers to utilize the full workspace with the use of up to eight valves or tools, individually positioned with independent materials and functionality. This industry-leading feature enables users to automate and control the application of multiple materials, including how the materials interact with one another within a single coating profile. For example, a user can isolate components with a masking material, UV cure the material and then spray the balance of the board, all without operator intervention.



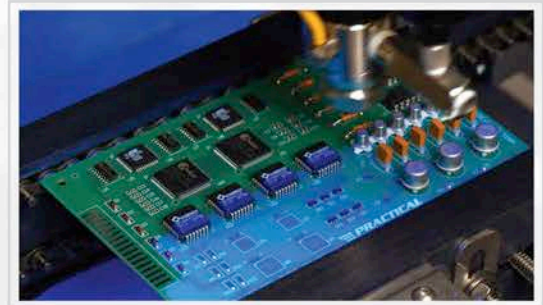
## RELIABLE PROTECTION ACROSS INDUSTRIES

SCS offers the most accurate and dependable coating and dispensing systems for applications where protection from dust, chemicals, moisture, temperature extremes and shock is key. The PrecisionCoat VI applies coatings to substrates in a wide array of industries, including:

- Industrial electronics
- Consumer electronics
- Defense
- Aerospace
- Automotive
- Maritime
- Power management
- Medical
- Renewable energy
- LED lighting
- Solar

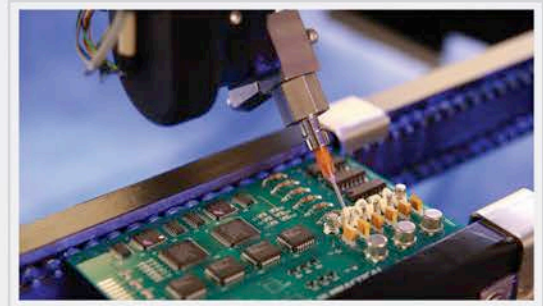
### CONFORMAL COATING APPLICATIONS

The PrecisionCoat VI offers numerous spray and dispense valves that apply a wide range of conformal coating materials such as silicones, acrylics, urethanes, epoxies and other materials. With a combination of spray and dispense valves, along with 3-5 axes of movement, boards can be selectively coated without the need for time-consuming masking and de-masking.



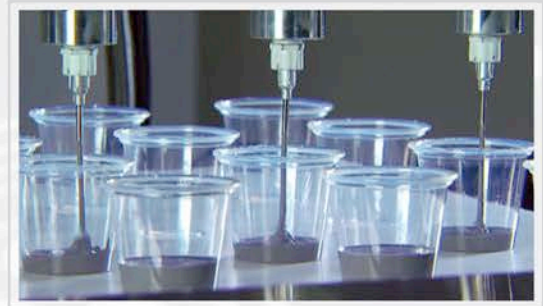
### DISPENSE APPLICATIONS

Multi-valve technologies on the PrecisionCoat VI enable the application of adhesives and epoxies through various methods, including dots, lines, fills glob-tops and underfill, all with a single system. The following valves are available, and are often interchangeable, on SCS PrecisionCoat systems: two-part mixing dispense, dot dispense, jetting technology, flow coat and low- to medium-speed solder paste dispense. For maximum flexibility, atomizing and non-atomizing spray valves can also be integrated into a dispensing platform.



### POTTING APPLICATIONS

The PrecisionCoat VI potting platform dispenses materials, including silicones, epoxies, urethanes, etc. to seal, stabilize and/or protect applications from shock, vibration, moisture or corrosion. An automated potting process allows industrial electronics, lighting, military and avionics manufacturers to precisely control the volume of material dispensed, increasing efficiency and decreasing waste. The PrecisionCoat VI can be configured with one head or multiple heads and can dispense one or two-part materials. Various dispense techniques can be used to reduce voiding in the cavity, including bottom fill, multi-stage fills or multi-shot applications.



### THE SCS ADVANTAGE

In today's competitive environment, flexibility and accuracy are critical. The SCS PrecisionCoat family gives customers both. In addition to industry-leading systems, SCS cares for customers with best-in-class service and support. A knowledgeable and friendly team assists with application engineering, custom designs, product demonstrations and world-class technical support. SCS works closely with customers to create a custom solution for their specific need by drawing on a variety of features and options to meet any requirement.

With over 50 years of experience in conformal coatings, SCS' industry-leading systems, features and resources are ready to meet and exceed your expectations.

## VALVE OPTIONS

Type	Name	Description
Spray	Narrow spray	Narrow conical atomized spray for widths from 0.125 to 0.5 in.*
	Wide spray	Wide conical atomized spray for widths from 0.25 to 2.0 in.*
	Fan spray	Elliptical atomized spray
	Film valve	Non-atomized coating valve
Dispense	Needle dispense	Shot or continuous dispense valve with replaceable Luer lock needle
	Syringe dispense	Air-powered fluid dispense directly from syringe for single and two-part materials
	Micro dot dispense	Micro dot dispensing of repeatable dot
	1K progressive cavity dispense	Controlled dispensing of single-component materials
	2K progressive cavity dispense	Controlled dispensing of two-component materials, reducing the need for batch matching
	Meter mix	Servo-controlled system for single or two part materials
	Potting	High-volume flow of single or two part materials
Jet	Piezo jet valve	Non-contact dispense valve capable of dispensing materials up to 400,000 cps

\*Results may vary based on system configuration and materials.



SCS Tower jet valve

## PRECISIONCOAT VI SPECIFICATIONS

Minimum substrate size	2 x 4 in / 5.08 x 10.16 cm (2 x 2 in / 5.08 x 5.08 cm with slide rail)
Maximum substrate size	20 x 20 in / 50.8 x 50.8 cm (20 x 29 in / 50.8 x 73.7 cm with second board stop)
Maximum substrate height	5 in / 13 cm above and below pass height
Electrical	120 VAC, 6A; 230 VAC, 3.5A
Exhaust requirements	150 CFM exhaust with 6 in / 15 cm duct
Air supply	10 CFM @ 90 psi dry air (some moisture-sensitive materials may require use of nitrogen instead of clean, dry air)
System dimensions (W x D x H)	40.8 x 54.5 x 71.4 in / 103.7 x 138.4 x 181.4 cm
Weight, skidded	1000 lb / 454 kg

## INNOVATIVE SOLUTIONS FOR ADVANCED TECHNOLOGIES.

With over 50 years of experience and locations around the world, Specialty Coating Systems is the global leader in conformal coating technologies. This extensive coating and application experience is leveraged on each and every customer project, including the industry-leading systems that SCS designs and manufactures. From conformal coating, dispensing and cure systems to ionic contamination test systems, SCS equipment is used in environments that range from university and research labs to high-volume production facilities. SCS' proactive approach to production and quality requirements—testing, validating, documenting and processing—enables customers and their advanced technologies to meet the most challenging industry specifications and quality requirements.



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