



SPECIALTY COATING SYSTEMS™



Fast and accurate cleanliness testing.

SCS IONOGRAPH® SERIES

Specialty Coating Systems' name is synonymous in the industry with automated ROSE (Resistivity of Solvent Extract) testing systems. SCS Ionograph® ionic contamination test systems utilize the dynamic extraction method to measure resistivity change when a substrate is submerged in the ultra-pure test solution. The degree of change in resistivity indicates the level of contamination, which is often the result of residues from fabrication and board assembly processes.

SCS Ionograph Test Systems

SCS offers a full range of capacity and control to meet the needs of any lab or manufacturer. Designed for fast and accurate ionic contamination cleanliness testing, SCS Ionographs:

- Determine the cleanliness of electronic components, assemblies with SMT devices, and bare and assembled printed circuit boards.
- Provide an accurate, repeatable and rapid method for determining cleanliness on location.
- Provide immediate process control results, negating the need for outside laboratory testing.
- Verify proper cleanliness of surfaces prior to the application of conformal coatings or potting compounds.
- Comply with industrial specifications such as ANSI/J-STD-001 and IPC-TM-650, and are specifically named in MIL-STD-2000A and MIL-P-28809A.

SCS Ionograph SMD V

SCS Ionograph SMD V is a floor unit commonly used for larger circuit boards in high-volume production environments. Submerged agitation jets and optional heated extract solution provide

outstanding sensitivity, operational efficiency and the ability to test ultra-fine pitch components with ease and accuracy.

The SCS Ionograph SMD V offers users the ability to test components with a heated or non-heated test solution. IPC-TM-650 describes the benefit of a heated solution to “accelerate and improve the efficiency of extraction of ionic material from poorly accessible regions, such as under surface-mounted components.” In addition to increasing cleaning efficiency, a heated system also ensures temperature consistency of the test solution, whereas solution temperature in an unheated system can vary due to circulation pump friction created during the testing process.

The CE-certified Ionograph SMD V is available with a convenient onboard all-in-one computer or tablet, providing efficient control and monitoring of the test system using Windows®-based SCS PowerView™ software. The system features easy-access door panels for the routine maintenance of consumable components (e.g., DI columns and pump filter).



Ionograph SMD V





Ionograph BT SP



Ionograph BT MP

Ionograph BT LP

SCS Ionograph BT Series

SCS also offers convenient benchtop Ionographs for the quick and accurate testing of individual parts, complete assemblies or small devices. The units enable users to match the test cell size with common substrate sizes to provide enhanced testing accuracy.

SCS Ionograph BT models are available in multiple test cell sizes, including:

- Small Parts (SP): 6 x 6 in
- Medium Parts (MP): 14 x 12 in
- Large Parts (LP): 14 x 20 in

BT Series Ionographs, operated by Windows-based SCS PowerView software, are available with an all-in-one computer or tablet for maximum convenience and efficiency. The CE-certified systems feature easy-access door panels for the routine maintenance of consumable components (e.g., DI columns and pump filter) and their full stainless steel structure is durable for easy cleaning and corrosion resistance. For enhanced safety, electronic components are isolated in a separate, remote control module.

SCS PowerView™ Software

SCS Ionographs are controlled by proprietary PowerView software, specifically developed for the ultimate programming and operation of SCS ionic contamination test equipment. Users can create, save and run unlimited test profiles, and collected data can be archived, exported and analyzed.

The Windows-based program establishes contamination testing parameters and calibrates equipment for consistent, repeatable and accurate measurements. Data is transmitted to the controlling computer for export, reporting and comparison, providing unparalleled ease of analysis and flexibility in creating data charts and tables.

PowerView Features

- Enhanced 32 or 64-bit user interface
- Test solution concentration calculations
- Robust reporting of test results
- Enhanced, interactive graphical summaries
- Increased data filter capabilities
- Built-in profile system
- Simplified database export capabilities
- Multi-level password protection for added security
- Operates on multiple Windows platforms
- Network connectivity for remote access/archiving
- PDF test results for ease of dissemination



SCS Ionograph Specifications

| Characteristic | SMD V Module | BT Series: Small Parts | BT Series: Medium Parts | BT Series: Large Parts |
|-----------------------------|--|--|--|--|
| Test Cell Size (W x H x D) | 18 x 20 x 5* in / 45.7 x 50.8 x 12.7 cm 26 x 20 x 5* in / 66 x 50.8 x 12.7 cm 30 x 26 x 5* in / 76.2 x 66 x 12.7 cm 38 x 26 x 3.5 in / 96.5 x 66 x 8.9 cm | 6 x 6 x 1.125 in / 15.2 x 15.2 x 2.9 cm | 14 x 12 x 2.5 in / 35.6 x 30.5 x 6.4 cm | 14 x 20 x 2.5 in / 35.6 x 50.8 x 6.4 cm |
| Estimated Solution Capacity | 6.5 - 15 g / 24.6 - 56.8 L | 0.4 g / 1.5 L | 2.6 g / 10 L | 4 g / 15 L |
| Dimensions (W x H x D) | 43.5 x 39.1 x 26.7 in / 110.5 x 99.3 x 67.8 cm | 11 x 20.75 x 15 in / 27.9 x 52.7 x 38.1 cm | 15.25 x 19.75 x 15 in / 38.7 x 50.2 x 38.1 cm | 15.25 x 27 x 16.25 in / 38.7 x 68.6 x 41.3 cm |
| Weight | 382 lb / 173 kg | 46 lb / 20.9 kg | 64 lb / 29 kg | 78 lb / 35.4 kg |
| Power Requirements | 120 VAC, 60 Hz, 10 A / 230 VAC, 50 Hz, 5 A | 120 VAC, 60 Hz, 1 A / 230 VAC, 50 Hz, 0.5 A | 120 VAC, 60 Hz, 1 A / 230 VAC, 50 Hz, 0.5 A | 120 VAC, 60 Hz, 1 A / 230 VAC, 50 Hz, 0.5 A |
| Maximum Operating Temp.** | 113° F / 45° C | — | — | — |

Test cell tapers from 5-in/12.7-cm at top to 3.1-in/7.9-cm at bottom.

**Only applicable with optional heater

Innovative solutions for advanced technologies.

Specialty Coating Systems leads the industry in providing Parylene solutions for its global customers' advanced technologies. SCS is a direct descendant of the companies that originally developed Parylene, and we have more than 40 years of experience and expertise that we leverage on every project for our customers—from the initial planning phases, to advanced engineering, to the development of application processes.

Our worldwide resources include highly experienced sales engineers, some of the world's foremost Parylene specialists, and expert manufacturing personnel, working in eleven state-of-the-art coating facilities around the globe. In addition to Parylene coating services, we design and manufacture industry-leading Parylene deposition systems; liquid spray, dip and spin coating systems; ionic contamination test systems; and UV and thermal cure units. Our equipment is used in environments that range from university and research labs to high-volume production applications.

Our extensive and proactive approach to production and quality requirements—testing, validating, documenting and processing—provides our customers peace of mind and minimizes their resources needed to meet the most challenging industry specifications and quality requirements.



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