

Shanghai Chengwei Semiconductor Equipment Launches Chemical Delivery Module And Bulk Chemical Distribution System

New automated chemical distribution solutions minimize micro-contamination and support high-yield sub-nanometer fabrication loops.



Shanghai, China Sep 29, 2026 ([Issuewire.com](https://www.issuewire.com)) - Shanghai Chengwei Semiconductor Equipment Co., Ltd. (CWSEC), a specialized manufacturer of ultra-high purity (UHP) fluid handling infrastructure, today announced the official commercial launch of its advanced [Chemical Delivery Modules \(CDMs\)](#) and centralized [Bulk Chemical Distribution Systems \(BCDS\)](#). Engineered specifically to fulfill the stringent requirements of modern sub-nanometer semiconductor fabrication plants, these new product lines focus on automated micro-contamination control and continuous process chemical reliability.

As semiconductor nodes contract toward sub-7nm architectures, the sensitivity of chemical delivery loops to trace particles, metal ions, and organic impurities increases exponentially. The newly

introduced [Chemical Delivery Modules](#) provide precise point-of-use chemical dispensing, localized blending, and continuous multi-stage filtration. Each module is built with secondary containment structures and precise volumetric flow control loops, ensuring highly repeatable and safe delivery of high-purity wet chemicals, acids, solvents, and specialized cleaning formulations directly to the process bays.

Complementing the localized modules, the Bulk Chemical Distribution Systems handle large-volume chemical management from centralized external facility storage areas to sub-fab corridors. The BCDS framework utilizes advanced pneumatic or mag-drive continuous-recirculation pumps configured to maintain optimal fluid mechanics without generating thermal degradation or abrasive micro-bubbles. Integrating real-time analytical monitors, the system performs ongoing verification of chemical concentrations, moisture levels, and pressure gradients to ensure strict compliance with strict process specifications.

To achieve the metallurgical and polymer standards required for ultra-high purity chemical transfer, CWSC executes all manufacturing and assembly tasks within its specialized 4,000-square-meter facility in the Songjiang District of Shanghai. This infrastructure includes a dedicated 2,500-square-meter ultra-clean assembly hall and an integrated 500-square-meter Class 100 cleanroom. Every piping network within the CDM and BCDS products utilizes high-purity fluoropolymer (PFA and PTFE) materials alongside double-contained coaxial piping systems, incorporating continuous electronic leak detection arrays to maximize production safety.

The introduction of these chemical distribution architectures represents a logical continuation of Shanghai Chengwei's expansion in the sub-fab equipment sector. Following the capacity scaling of its Songjiang manufacturing plant earlier this month, the firm has positioned its product roadmap to deliver complete, integrated turnkey liquid and gas infrastructure loops. By optimizing the link between facility-wide bulk chemical networks and tool-level delivery interfaces, the systems minimize total cost of ownership while maximizing operational uptime for manufacturing facilities.

About Shanghai Chengwei Semiconductor Equipment Co., Ltd.:

Founded in September 2025, Shanghai Chengwei Semiconductor Equipment Co., Ltd. is an industrial supplier specializing in automated ultra-high purity fluid and gas infrastructure. Headquartered in Shanghai's Songjiang District, the company develops, manufactures, and supports high-purity Gas Cabinets, Valve Manifold Boxes, Chemical Delivery Modules, [Bulk Chemical Distribution Systems](#), and centralized laboratory piping networks. CWSC is dedicated to providing high-purity delivery solutions that support chemical and gas integrity across the semiconductor, flat panel display, and solar energy manufacturing industries.

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