



JST Launches Upgraded IPA-based Apex Wafer Dryer

New Marangoni-type dryer leverages proprietary features to shorten drying times and minimize particles to improve device yields

Meridian, Idaho – October 13, 2026 – JST, a leading provider of wet benches, wafer cleaning and processing tools for the semiconductor industry, today announced Apex, its upgraded Marangoni-type, isopropyl alcohol (IPA)-based wafer dryer. The new Apex dryer enables improved device yields by delivering reduced particle defect size and density and 10% to 15% shorter drying cycle times compared to JST's existing IPA dryer.

The dryer employs proprietary features that further contribute to defect control:

- Proprietary contact material in the wafer carrier eliminates carrier marks by expediting liquid absorption, leaving no residue and maximizing the defect-free surface area with minimal edge exclusion.
- A new drying methodology maintains IPA concentration throughout the process and offers stricter temperature and distance control in the drying tank. This greater control allows the Apex dryer to meet more stringent contaminant particle-size requirements, driven by finer device nodes, resulting in particles as small as 28nm.

“The increasing complexity of semiconductor devices and shrinking node sizes make particle contamination much more damaging, leading to a reduction in yield,” said Dr. Ismail Kashkoush, CTO of JST. “We worked with a key customer in the field for over six months to develop these capabilities, ensuring smaller and fewer defects per wafer and making Apex ideal for high-aspect-ratio features used in advanced packaging for AI, high-bandwidth memory, and critical semiconductor applications.”

The new Apex dryer can be retrofitted to existing JST Marangoni-type dryer models and has been incorporated into JST's Applications Lab, the company's collaborative, live-testing environment that was upgraded earlier this year. The enhancements allow the facility to accommodate customer demand for finer applications by meeting tighter specifications.

The Apex batch dryer is available now for purchase. For more information, please reach out to sales@jstmfg.com or visit www.jstmfg.com. Or visit JST at Booth 1747 during SEMICON West, taking place October 13-15, 2026, at the Moscone Center in San Francisco.

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About JST

JST is a world-class supplier of wet benches for the semiconductor, optoelectronics, biomedical, food processing, and other clean industries. We collaborate with our customers to provide best solutions for lab, fab, and HVM requirements, which incorporate reduced chemical usage, reduced footprint, and efficient automation for improved throughput to provide the maximum return on investment for the industries we serve. To learn more about JST's systems and service offerings, visit www.jstmfg.com.