

SIKAMA SOLUTIONS

TURNKEY SOLUTIONS

THE CUSTOMER

Jabil | Anaheim, California

“Provider of standard & custom automated wafer handling solutions to semiconductor tool manufacturers & end users.”



THE CHALLENGE

A key customer reached out to Sikama International and Jabil desiring a fully automated loading and unloading solution for Sikama International’s wafer coating, reflowing, and washing system. The customer needed the ability to load components from two Falcon ICS412 Coaters into a UP1200 reflow oven and unload onto two Falcon ICS412 Washers to increase their throughput while keeping their footprint small.

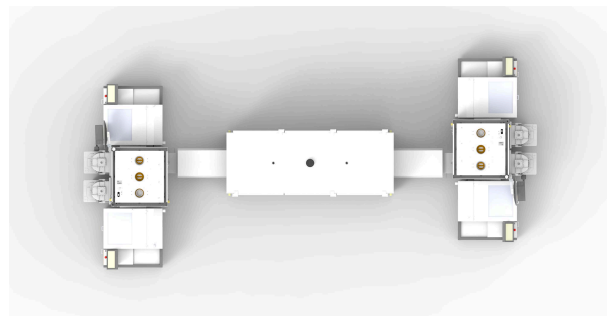
Component processing requirements included ultra reliable handling of 300mm wafers up to 2mm thick with up to +/-2mm of warp/bow. In addition, the system had to operate autonomously, cascade lots for increased throughput, and report equipment metrics to the facility’s MES (Manufacturing Execution Systems) by using only one connection to the entire 5 piece tool set.

THE SOLUTION

Sikama worked closely with Jabil to create a turnkey solution. A Jabil WaferMate 300 EFEM was used to hand off components from either coater to the UP1200 reflow oven and deliver the reflowed product to either of Sikama’s washing systems.



The Jabil EFEM robot and vacuum end effector automatically unloaded wafers from the two FOUP loadports to the Sikama Coaters. RFID readers and aligners with OCRs provided wafer tracking for lots and wafer IDs through the entire process. Conveyors ensured a seamless transition of wafers between EFEMs and reflow oven. Process data was delivered through a single channel connecting with the customer’s MES providing valuable SPC.



THE BENEFIT

A high throughput system with fully automated wafer processing capabilities through the flux coating, reflow, and washing process was the result. In addition, Sikama and Jabil continue to provide local support to ensure equipment uptime is maximized.

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“Designing and manufacturing state-of-the-art reflow systems for electronics manufacturers worldwide.”