

New Consortium to Tackle SMT Line Defect Reduction

Written by Mike Buetow

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ALPHARETTA, GA -- Some 16 major assembly equipment companies met two weeks ago as part of an informal consortium to collaborate on a common approach to whole-line electronics equipment assembly.

The two-day industry seminar, chaired by **Assembléon** on Sept. 4-5, brought together suppliers of screen printers, reflow ovens, inspection systems, conveyors and software. Among the suppliers attending were **Aegis, Assembléon, BTU, DEK, Heller, Koh Young, Mentor, Mirtec, Nutek, Rehm, Rommel, Seho, Speedline, VI Technology, Vitronics Soltec** and **Yestech**.

“Over the last couple of years, economic turmoil has caused manufacturers to lose key personnel and process expertise, and they are now turning to suppliers for technology support,” said Mark Maas, senior product marketing manager at Assembléon. “That places much more responsibility on suppliers to solve their customers’ problems. They are increasingly being asked to do complete-line audits, and need to offer whole-line solutions.”

New machines are making equipment assembly much more flexible but also placing extra demands on upstream and downstream equipment. Taking full advantage of the such developments as dual-lane placement machines requires extra speed and flexibility from the upstream screen printers. Ovens need to cope with different temperature profiles for the different lanes. The whole line needs to supply materials, components, boards and schedules on demand at high speeds in the face of the virtually continual product changeovers in today’s high-mix environments.

Meanwhile, the latest quality initiatives can reduce faults to below 10 defects per million components for a complete line, levels that require cooperation between equipment suppliers to solve quality issues immediately, particularly since the industry average is well above 70 dpm.

The consortium is sharing knowledge of processes, products, applications, trends and solutions. It will also address present problems with overall equipment effectiveness. “OEE is difficult to measure: there is much variation in how it is measured by equipment assemblers, and it means

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different things to different manufacturers,” said Maas.

The seminar included talks and presentations by industry experts on topics including dual-lane production, software, standardization, knowledge transfer, roadmaps, and trends. The companies plan to produce white papers, set up task groups, share roadmaps and present common recommendations to standards committees. In particular, improvements are needed on communications protocols, and IPC-A-610 workmanship and IPC-9851 mechanical and electrical interface standards.

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