

ASE relies on Siplace placement machines for its 0201 component production

Maximizing miniature placement

Korean electronics manufacturer ASE places high demands on the performance and flexibility of the placement equipment it uses for its miniature 0201 component production. In Asia, it is particularly important to employ placement equipment that is stable, easy to use and that, therefore, guarantees high throughput rates and a high degree of flexibility. Within the past two years, Siplace has fully met the company's hardware and software needs with its comprehensive package of maintenance and consulting services.

A member of the ASE Group, the Taiwanese company, one of the large global suppliers of high profile semiconductors and home appliances, provides turnkey semiconductor solutions for such markets as the automotive, medical, telecommunications as well as other industries. With the continuing trend towards miniaturization, ASE sees an increasing need to process the smallest 0201 components – a high-tech task which the old placement machines at ASE from a Japanese company were unable to perform.

Teaming up with performance

For this reason, ASE teamed up with Siemens to install Siplace placement machines for its production of radio frequency power modules at its plant in Paju, Korea. From the start, ASE focused on the top-of-the-line Siplace HS. What initially started at the end of 2001 with a single HS-50 machine for placing 0201 components has since grown into lines consisting of thirty three machines. Siemens recently also received additional orders for eight Siplace HS-60 placement machines which with their 12-nozzle heads place up to 60,000 components per hour, ranging in size from 0201 to 18.7 millimeters – all of this with a precision of at least 90 micrometers at 4 sigma.

In order to test actual placement precision and speed prior to installation, an ASE line configuration was set up at the Siemens Demonstration Center in Korea. Thus, ASE could be certain that the machines would perform to specifications.

When the machines were delivered and set up some three weeks later, their actual in-line performance confirmed the test values, and the company's economic efficiency assessments underscored the reliability and performance of the Siplace placement machines.

True to its "Throughput Guaranteed" seal of approval, reliably meeting specifications over the long-term comes naturally for Siplace. However, according to Tony Kleinheinz, managing director for EA Siemens Ltd. Seoul, not all competitors share this philosophy: "Unfortunately, there are some in our industry who promise more than they can keep."

As a result of their positive experience with Siplace, ASE continues to migrate from their previous Japanese equipment supplier to Siplace. The remarkable performance of the Siplace HS-50 in the Korean Siplace Demo Center prompted ASE to order Siplace placement machines as a first investment, rather than playing competitors off of one another.

According to the Korean electronics manufacturer's management, the ease of use of the machines also weighed in favor of Siplace. The modular design allows setup and product changes to be performed more quickly than before. In addition, the clear and multilingual software, including Korean, makes life easier for machine operators and programmers. The Siplace traceability tool, which ASE also selected, was adapted to the customer's specifications by engineers from both companies.



All pictures: Siemens AG

Since ASE operates in three shifts around the clock, service was just as important as hardware and software. Siplace's service team is available 24 hours a day, seven days a week. While most problems can be solved over the phone, a technician can, if necessary, be at the plant within 2 hours to get machines up and running again. ■

More information:

Anton Kleinheinz, Siemens Seoul

E-mail: tony.kleinheinz@siemens.com