



Responsive across the board

With flexible production logistics and placement technology from ASMPT



The challenge

As an EMS service provider, micas AG manufactures both customized OEM orders for well-known brands and its own products with a focus on lighting, sanitation, and IoT. This means that the company must be able to accommodate many and frequently changing product variants, often with demanding components, and high standards of precision, speed, and flexibility. To stay internationally competitive, Micas had to set up its SMT production operations in a way that would ensure short setup times, streamline workflows, and provide total traceability even for complex bills of materials. The company wanted to optimize its material flows and minimize its machine downtimes while integrating the programming efficiently into existing processes without placing a burden on ongoing operations.



“From innovation leader ASMPT we don't just get excellent hardware and software but the complete support package ranging from demand analysis to consulting and installation to training.”

Katja Hillebrand
Managing Board Member, micas AG



Setup changeovers reduced by approx. 30 minutes thanks of offline programming



Throughput increased by up to 200,000 components per hour



Core cycle time of only 6.5 seconds during solder paste printing



Improved line availability thanks to faster and more precise setup processes



Improved traceability from receiving to the SMT line



Fewer production interruptions thanks to waffle pack changer

The solution

Highly flexible SMT line with integrated know-how

A powerful line from ASMPT provides speed and process reliability in micas AG's manufacturing operations. A [DEK TQ L](#) solder paste printer features high precision and short cycle times, while the combination of [SIPLACE TX](#) and [SIPLACE SX](#) placement machines processes a huge spectrum of components ranging from the tiniest SMDs to complex odd-shaped components with exceptional reliability. A SIPLACE Waffle Pack Changer supplies components continuously because its non-stop module allows the operator to add and remove trays without interrupting the production flow. Thanks to flexible placement heads and [intelligent features](#) like 3D component recognition, the line runs with exceptional speed and reliability. Another helpful feature: micas AG can perform its head maintenance in-house thanks to special training provided by ASMPT.

Offline programming for greater efficiency

To minimize downtime during setup changeovers, micas AG relies on [WORKS Programming](#) software from ASMPT for its offline programming. The practice-oriented application creates and validates non-line-specific placement programs by importing data directly from the CAD system. To identify potential problems, it simulates the placement operations before the start of production. Even the solder paste printing programs are prepared offline and automatically transferred to the line. Thanks to features like these, micas AG saves roughly 30 minutes per setup – a noticeable efficiency booster in everyday operations and a clear plus in line utilization.

Seamless material tracking and efficient warehouse logistics

To manage its material supplies, micas AG employs ASMPT's [Factory Material Manager](#) software. When material is received, each package is digitally recorded, assigned a unique ID and centrally administered, including all relevant information such as its delivery date, batch number, and moisture sensitivity. The software generates requirements-oriented pick lists and ensures FIFO retrieval – even with highly complex



Matthias Weber (left), Head of Operations at micas AG, and Michael May, Head of PCB Assembly at micas AG (right)

About micas AG

Located in Oelsnitz in Germany's Ore Mountains, micas AG is a medium-sized company that specialized in the development and production of customer-specific OEM sensor solutions. Since its founding in 2000, micas AG has been supplying high-quality electronic products for building technology and selected industrial applications. The technical basis is a modular system that has been developed over many years and combines the company's sensor, control and software competencies. With this platform-based structure, micas AG implements tailor-made solutions – especially for lighting and water-related applications – that are made in Germany and used all over the world.

storage structures. Especially when working with customers who provide the material themselves, micas AG can provide maximum transparency and full traceability.

The success story

The consistent automation and digitization of its SMT processes has led to measurable improvements at micas AG. For example, WORKS Programming has noticeably reduced the company's setup times, which in turn improved its line availability. The combination of intelligent hardware and software ensures consistently high throughput numbers while improving material supplies and minimizing the tracking effort. The fact that micas AG has even exceeded its own reflow capacity with the new line speaks for itself and shows that speed, precision and flexibility go hand in hand at ASMPT.

ASMPT

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