



Winner of the  
**productronica**  
innovation award 2019

## **Cluster SMT: SEHO Systems – SelectLine-C**

Laudation by Prof. Klaus-Dieter Lang, Fraunhofer IZM

This year's productronica award applications impressed me by the large number of highly innovative ideas submitted from all clusters. This shows in an excellent way, how creative and powerful the industry for electronics production is, was and will continue to be!

It is also encouraging to see that the industry is quickly moving to support the idea of Industry 4.0 as a foundation for the next generation of efficient and cost effective production. We can benefit in this context from improved process control, better quality, higher reliability and lower cost for manufacturer and end users.

This also applies in full for the SMT-Cluster.

Saying this, it was a difficult decision to select from this year's proposals the winner, having so many excellent applications.

With the boards' major vote, I have the honor to present this year's first prize of the Productronica Innovation Award in the category "SMT-Cluster" for its "Innovation on a Cost Efficient Selective Soldering Process for Next-Generation-Products", submitted by the SEHO Systems GmbH!

Seho is a specialist for soldering equipment and component assembly addressing very different customer requirements. Their soldering systems are the core of many advanced Electronic Manufacturing Service providers and OEMs, whether its standard components or next generation elements like small form factor LED, lighting equipment, large display boards or display screens.

The electronic components and substrate panels used for these next-generation products typically do not conform to the usual dimensions. They are much larger, have to be processed very carefully and come by with non-traditional interconnects. Today's manufacturing systems are not prepared to process assemblies with such components and for such large area sizes. Even if pushed to their limits, their manufacturing efficiency suffers.

To address these challenges, the innovative SelectLine-C has been developed to meet these constantly growing requirements in the manufacturing of next-generation-products.

Using intelligent process control, the Select Line -C can seamlessly switch between a standard process flow, which stops the production panel at each station, or a fully continuous mode, supporting even reel-to-reel manufacturing concepts.

To achieve this, the process software not only intelligently controls the transport through the line, but can also control pulsar heaters for precise preheating and employ an innovative following mode to allow the selective soldering head to travel precisely with the production panel on the move.

Not to the least, supporting the trend towards full digitalization of the production process, a digital twin concept allows to maximize the productivity not only on this equipment, but simulating the production flow and optimize it throughout the full manufacturing line.

The high level of excellence and ingenuity seen in this novel product has convinced the board to award the prize for the SMT-Cluster to SEHO for its SelectLine-C innovation.

Once again, congratulations on 1st place and good luck for future undertakings.