

# Experience what's possible.



[www.asm-smt-solutions.com](http://www.asm-smt-solutions.com)

## Smart #1 SMT Factory

The next generation of high-end production

# Top performance perfectly integrated

ASM combines our latest best-in-class components to form the most innovative and powerful line solution for high-end electronics manufacturing. Everything from a single source – everything from technology leader ASM.



## **The first SMT line that optimizes itself**

In the ASM line, the self-learning ASM ProcessExpert system stabilizes, autonomously optimizes, and controls pro-actively the printing processes completely automatically.

It thoroughly analyses the printing results in real time using an innovative and highly accurate solder paste measurement system.

Rigid thresholds were yesterday. The ASM ProcessExpert optimizes all printing parameters based on the printing quality of the DEK printer.

The innovative expert system makes its knowledge available to your production 24 hours a day, seven days a week. Welcome to the Smart #1 SMT Factory.

## **Top placement performance, tiny footprint**

Everything has been designed for top performance. Each of the compact SIPLACE TX modules places up to 78,000 components per hour while taking up only 2.3 square meters (about 25 sq.ft.) of floorspace.

The PCBs are printed with highly reliable and fast DEK NeoHorizon iX machines. If necessary, on two lanes side-by-side with the unique DEK NeoHorizon Back-to-Back setup.

## **Precise and future-proof: High-volume placement of 0201 (metric) components**

The SIPLACE TX modules shine with their outstanding performance in placement accuracy. For the first time, 0201 (metric) components can be placed at top speed.

## **Say goodbye to the tape**

Reel splicing is one of the main causes of line stops. That's why ASM is saying goodbye to the tape.

The innovative SIPLACE Bulk-Feeder X supplies standard components (01005 to 0402) in bulk with up to 1.5 million components per fill-up.

## **Production processes and material flows perfectly synchronized**

Make your material logistics ready for the Smart #1 SMT Factory. Fast, flexible, efficient: Innovative solutions like the SIPLACE Material Manager, SIPLACE Material Tower and SIPLACE Material Setup Assistant make sure that your materials always arrive in the right place at the right time.

# From start to finish: More performance through improved integration



## **DEK NeoHorizon** Efficient, reliable and future-proof

The DEK NeoHorizon Back-to-Back setup makes for a uniquely flexible dual-track solution.



## **DEK Nano Ultra stencils** The innovation in fine-pitch printing

The shimmering red Nano Ultra coating pushes the limits, delivering up to 40% more transfer efficiency for even the smallest apertures.



## **Stencil printing: DEK NeoHorizon**

DEK NeoHorizon is the latest, exceptionally reliable solder paste printer from ASM. Thanks to its modular design, users can adapt its performance and accuracy to perfectly match its specific requirements.

The standard cycle time can be reduced to 7.5 seconds, and the machine alignment accuracy can be increased to  $\pm 15 \mu\text{m}$  at  $2,0 \text{ C}_{mk}$ .

In the DEK NeoHorizon Back-to-Back configuration, two printers serve a dual-lane line. If this setup is no longer needed, the modules can be split up again to operate as standalone units.

Stencils with DEK Ultra Nano coating improve the transfer efficiency and printing quality in fine-pitch applications.



ASM ProcessEngine:  
Inspect in real time

ASM ProcessLens:  
5D SPM

SIPLACE TX  
Speed and quality without limits



## Optimize your printing process: ASM ProcessExpert

More speed, flexibility and accuracy: 8 million electronically controlled micro-mirrors on a Digital Light Projector (DLP) chip revolutionize the 3D measurement of solder deposits.

ASM's ProcessLens solder paste measurement system combines 2D and 3D methods to check printing results inline and transmit the values to the knowledge database of the real-time ASM ProcessEngine software.

Together, ASM ProcessLens and ASM ProcessEngine form the ASM ProcessExpert, first self-optimizing expert system for SMT production – a technological breakthrough and a milestone on the road to the Smart #1 SMT Factory.

With its DFM HealthCheck, the ASM ProcessExpert simulates the printing process with the stencil's Gerber data. It determines all relevant process parameters and indicates areas in the layout that may cause problems during the printing process.

During new product introductions, the ASM ProcessExpert optimizes the process parameters in only a few minutes based on a small number of test prints.

In production runs, the ASM ProcessExpert controls and optimizes the printing process entirely on its own – proactively and automatically, with each board adding knowledge to its databases.

For your electronics production, this means: more quality, more productivity, and unprecedented yield rates.



**SIPLACE BulkFeeder X**  
**No tapes, no splicing**

Ingeniously different:  
Components are fed in bulk and  
placed at top speed. The feeder holds  
up to 1.5 million components.



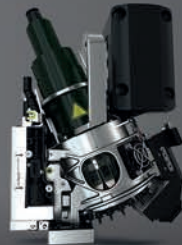
**SIPLACE SX**  
**World champion in flexibility**

Our successful platform for flexible  
electronics production. Freely scalable with  
interchangeable SX gantries.



**SIPLACE SpeedStar (CP20P)**  
**Fast and precise**

Our 20-nozzle placement head for the fast and  
precise placement of standard components.  
Places even 0201 (metric) components without  
slowing down.



**SIPLACE Material Tower**  
**For more efficient storage concepts**

The highly innovative storage system from  
ASM – integrated, automated, fast, extremely  
compact, and MSD-capable.

**Precise high-speed placement: SIPLACE TX**

The new SIPLACE TX placement  
modules feature top performance in  
the smallest footprint: up to 78,000  
cph in 2.3 square meters (approx. 25  
square feet).

Its small size makes it easy to scale  
SMT lines to keep up with demand.

Truly unique: With their placement  
accuracy of 25  $\mu$ m at 3 sigma,  
SIPLACE TX modules equipped with  
the SIPLACE SpeedStar CP20P  
handle even the next generation of  
0201 (metric) components with maxi-  
mum precision and at full speed.

**No tapes, no splicing**  
**ASM BulkFeeder X**

A new approach to component feeding:  
The SIPLACE BulkFeeder X feeds  
standard components (01005 to 0402)  
in bulk. No tapes needed. With its  
interchangeable cartridges, the  
SIPLACE BulkFeeder supplies up to  
1.5 million components in a single  
fill-up with no slow-down.

Eliminating tapes frees your line staff  
from time-consuming and error-prone  
splicing operations, simplifies your  
logistics, and minimizes tape leftovers  
and waste.

**Superior concept:**  
**Three placement heads for all  
requirements**

SIPLACE SpeedStar, SIPLACE Multi-  
Star, SIPLACE TwinStar  
Three heads are all it takes to cover  
any high-volume placement require-  
ments.

Since the SIPLACE MultiStar switches  
placement modes (collect-and-place,  
pick-and-place, mixed mode) in accor-  
dance with the product's require-  
ments, your lines are always perfectly  
balanced without expensive reconfigu-  
rations – even with frequent product  
changeovers.



ASM  
Website

[www.asm-smt-solutions.com](http://www.asm-smt-solutions.com)



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