ASM



ENABLING THE DIGITAL WORLD

SIPLACE SX

Maximum flexibility for the Integrated Smart Factory

THE NEW GENERATION **SIPLACE SX**

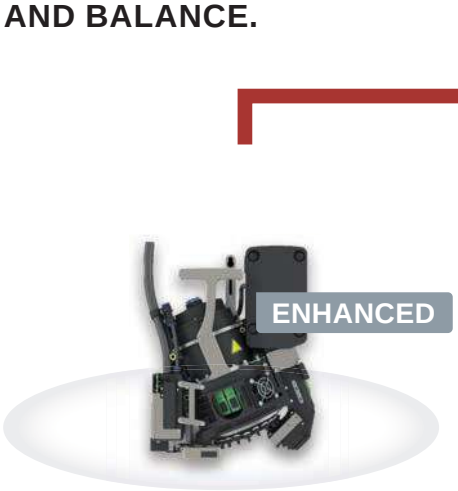
EVEN THE BEST WAS NO LONGER GOOD ENOUGH FOR US

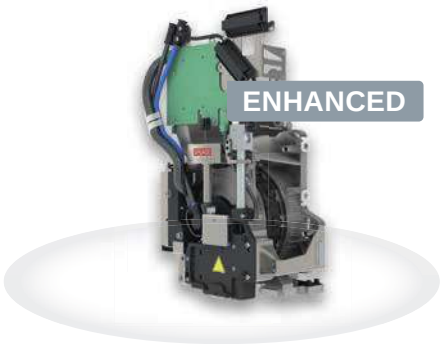
What happens when the most demanding electronics manufacturers get together with the most innovative developers? They go to work to make the best placement solution on the market even better. The new generation of the SIPLACE SX placement platform is now faster, more accurate and more flexible. It is also smart, open, learns quickly, adapts to any challenge, and makes your employees' lives easier. Get to know the new SIPLACE SX and learn what's possible in today's high-mix production environments – and no other machine can deliver.

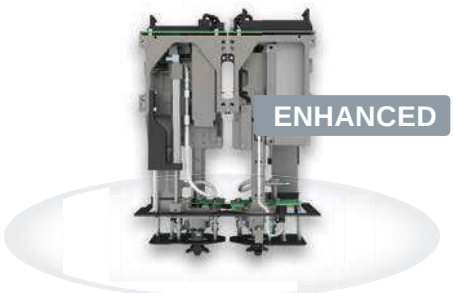


THE HEAD MAKES **THE DIFFERENCE**

THREE INNOVATIVE PLACEMENT HEADS DELIVER PERFORMANCE, FLEXIBILITY AND BALANCE.







SIPLACE SpeedStar

- Expanded component spectrum: 0201 metric to 8.2 mm × 8.2 mm × 4 mm
- More placement precision: ±34 µm @ 3 sigma
- Extremely fast: Up to 43,250 cph
- Maximum reliability: New component camera with GigE interface for better images with higher resolution

SIPLACE MultiStar

- Switches from pick-and-place to collect-and-place to mixed mode
- Component height: Up to 15.5 mm
- Component weight: Up to 20 g
- Automatic pin 1 detection
- LED Centering

SIPLACE TwinStar

- Component height: Up to 50 mm
- Component weight: Up to 240 g
- Snap-in detection
- Improved THT placement

THE SIPLACE SX
PUTS YOU ON THE FAST TRACK



Scalable

Unique interchangeable gantries allow you to shift placement capacity to where it's needed

Total flexibility

Tapes, sticks, bowls, trays and many more feeder options in addition to flexible multi-track conveyors and PCB sizes of up to 1,525 mm by 560 mm

Fast

Up to 86,500 cph (SIPLACE SX2)

Smart

Intelligent self-healing, self-learning and self-verification functions reduce operator assists to a new minimum

OSC Package

For very odd-shaped, large and/or heavy components and full THT capabilities

Ready for predictive maintenance

Sensors monitor the machine's behavior

Powerful software

Our superior programming, station software and workflow solutions ensure top performance and easy operation

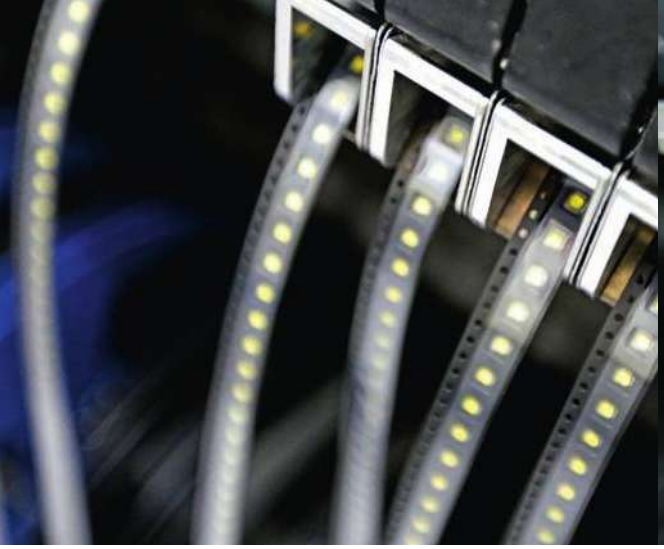
SMART INTEGRATION

PERFECTLY INTEGRATED INTO THE SMART FACTORY

ASM Command Center, ASM OIB, IPC CFX, IPC-Hermes-9852;
Level 4 process traceability (IPC rating)



More about the SIPLACE SX





SIPLACE SX
UNBEATABLE FLEXIBILITY

THE SIPLACE SX ADAPTS TO YOUR NEEDS

The SIPLACE SX is the world's leading placement platform for high-mix electronics production. Its flexibility begins with its huge component spectrum that is covered by three improved placement heads: SIPLACE SpeedStar, SIPLACE MultiStar, and SIPLACE TwinStar. It also offers many feeder and conveyor options. Even odd-shaped components can be supplied with exceptional reliability. Smaller boards with sizes of up to 450 mm by 275 mm can be moved with the efficient dual conveyor, and with the AMS Smart Transport Module you can process boards that are up to 1,525 mm by 560 mm large.

OSC Package

Where others give up, the SIPLACE SX pushes the envelope with its OSC Package. The enhanced component diversity minimizes manual labor, and the machine's integrated process controls maximize your yield.

Third-Party Feeder

Open interfaces permit the use of a wide range of feeders – also from third-party suppliers.

3D images

The SIPLACE SX generates 3D images by combining two images of the high-resolution component camera. It detects even damaged THT pin tops reliably. It also performs targeted on-board checks of highly critical areas for correct solder pads, missing components under shields, and correct positioning.

Snap-in detection

The SIPLACE SX detects incorrectly placed THT components by checking height differences during the placement process.

Placement force

The SIPLACE SX features total placement force control from touchless placement and 0.5 N to 100 N, from the placement of sensitive LEDs to that of robust connectors.

Acceleration

No unnecessary slow-downs: The SIPLACE SX further improves your productivity by automatically determining the best travel speeds for OSCs.





SIPLACE SX
SIMPLY SMART

FEWER OPERATOR ASSISTS, MORE UTILIZATION

The latest generation of the SIPLACE SX features a whole series of intelligent functions that relieve your staff from many manual adjustments or time-consuming assists and turn them into what we call ‘smart operators’.

Nozzle ID

No more errors caused by wrong nozzles. The SIPLACE SX recognizes the nozzle ID and reliably selects the right nozzle from the randomly filled magazine with up to 320 nozzles.

Nozzle management

The SIPLACE SX regularly analyzes each nozzle’s condition, cleans them automatically, and discards damaged nozzles.

Feeder pitch

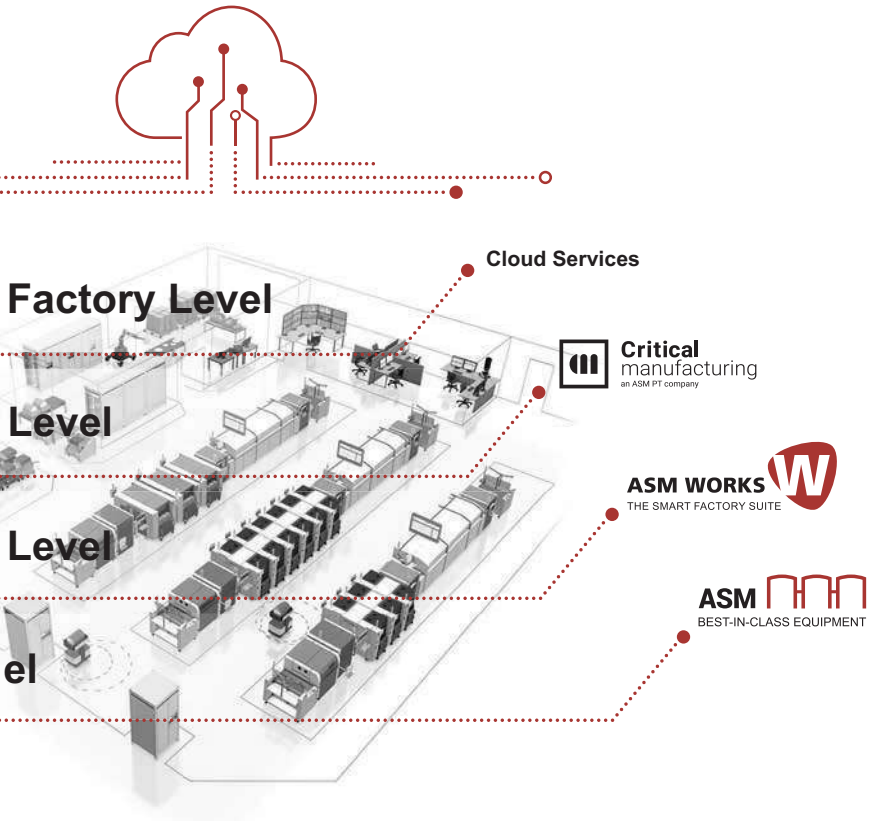
After each new setup, production job, feeder change or splice, the SIPLACE SX automatically determines the correct pitch setting for 8-mm tapes.

Smart operator guidance

If you have to deal with insufficiently described components, new fiducials or doubts regarding the correct placement height, the SIPLACE SX provides wizards that make it easy to enter and/or verify information directly at the machine or remotely for faster production starts.

Predictive maintenance

Sensors monitor the SIPLACE SX’s condition and support predictive maintenance concepts.



Open interfaces

The SIPLACE SX produces not only electronic modules, but lots of valuable status and process data.

Open interfaces like ASM OIB, IPC CFX or IPC-9852-Hermes provide access to this data and integrate the SIPLACE SX into workflows, MES, traceability and cloud solutions for the smart integrated factory from ASM or from other machine manufacturers.

CAPACITY ON DEMAND
PERFORMANCE WHERE IT'S NEEDED

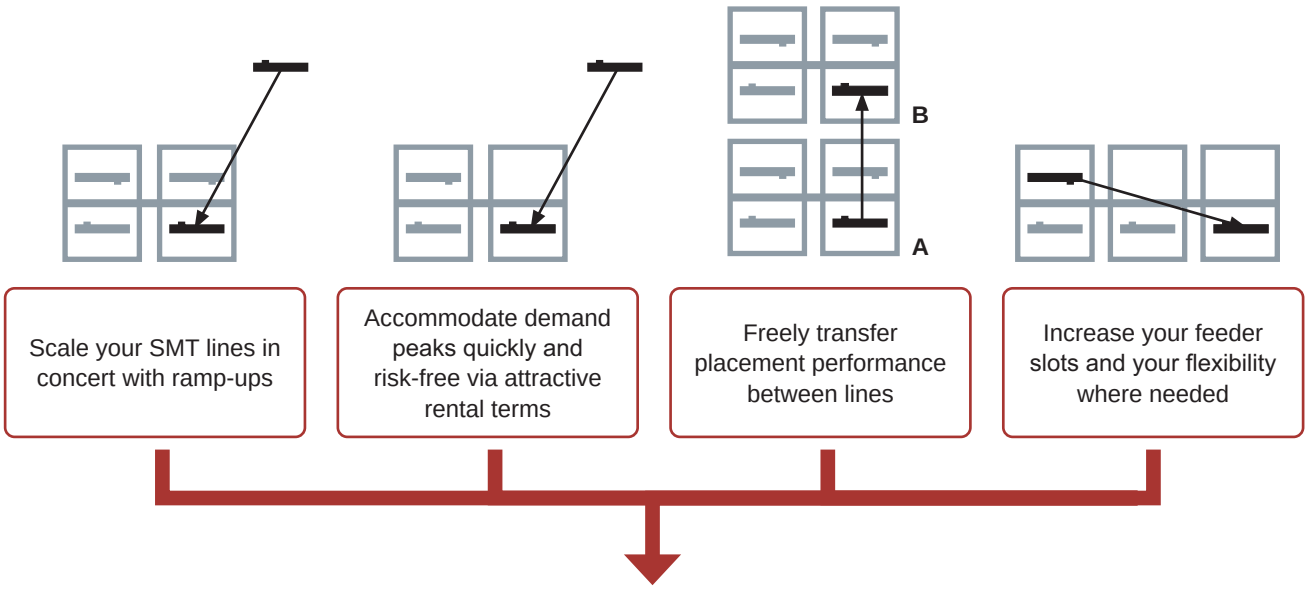
Free yourself from the bonds of rigid line concepts and capacities.

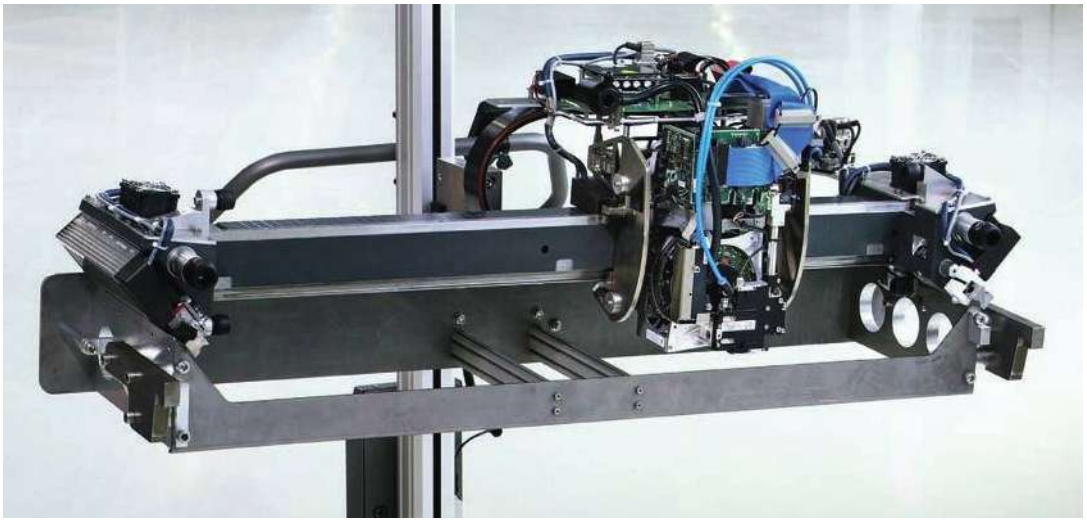
THE UNIQUE INTERCHANGEABLE GANTRIES OF THE SIPLACE SX DELIVER SCALABILITY AND A NEW LEVEL OF FLEXIBILITY.

Internal and external customers are becoming ever more demanding and set ever tighter deadlines. Sales forecasts for a product are often wrong, both upward and downward, resulting in wrongly configured lines with excess capacities or bottlenecks.

The SIPLACE SX provides an entirely new solution for volatile markets. Its interchangeable gantries can be installed or removed in a few minutes. The resulting flexibility allows you to quickly increase the capacity of a line by adding more gantries or to move gantries from one line to another to alleviate capacity bottlenecks.

The result: your production "breathes", and your lines adapt their capacities to the demand.

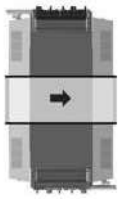
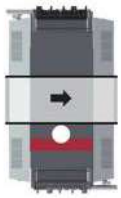
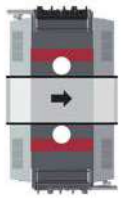




SIPLACE SX interchangeable gantries

Capacity on demand by fastest gantry exchange

SIPLACE SX
TECHNICAL DATA

SIPLACE SX+	SIPLACE SX1	SIPLACE SX2
		
Added feeder capacity	**Flexible production**	**High-speed production**

Technical data*	SIPLACE SX1	SIPLACE SX2
Placement speed**	43,000 cph	86,500 cph
Placement speed (IPC)	33,000 cph	66,000 cph
Feeder capacity	120 × 8-mm slots	
Component spectrum	0201 (metric) to 200 mm × 125 mm × 50 mm	
Board size	50 mm × 50 mm to 1,525 mm × 560 mm	
Machine dimensions (L x W x H)	1.5 m × 2.8 m × 1.8 m	
Placement heads	SpeedStar (CP20P2), MultiStar (CPP), TwinStar (TH)	
Placement accuracy	22 µm @ 3 σ (with TwinStar)	
Conveyors	Single-track conveyor, flexible dual-track conveyor	

Sample lines



	Placement	Speed**	Feeders	Length
SX2	CP20P2/CPP (low)	66,000 cph	120	1.5 m
SX2	TH/CPP (high)	27,000 cph	90	1.5 m
OEM line (SIPLACE SX2 + SIPLACE SX2)		**93,000 cph**	**210**	**3 m**



	Placement	Speed**	Feeders	Length
SX2	CP20P2/CP20P2	86,500 cph	120	1.5 m
SX1	CPP (low)	23,000 cph	120	1.5 m
SX2	TH/CPP (high)	27,000 cph	90	1.5 m
Automotive line (SIPLACE SX2 + SIPLACE SX1 + SIPLACE SX2)		**136,500 cph**	**330**	**4.5 m**



	Placement	Speed**	Feeders	Length
SX2	CP20P2/CPP (low)	66,000 cph	120	1.5 m
SX1	CPP (high)	21,500 cph	120	1.5 m
SX1	TH	5,500 cph	90	1.5 m
EMS line (SIPLACE SX2 + SIPLACE SX1 + SIPLACE SX1)		**93,000 cph**	**330**	**4.5 m**

* Performing professional maintenance in the scope and intervals recommended by ASM ensures that your SIPLACE equipment will deliver the specified performance and accuracy across its entire life cycle. Our maintenance contracts make this job even easier for you.

** SIPLACE benchmark

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