



With skilled labor being scarce and expensive, it is now more important than ever for employees to be able to focus on core tasks without getting constantly distracted by unnecessary routine work or troubleshooting activities. SIPLACE placement machines support the operating staff with functional technology and intelligent features.

The advanced technology of SIPLACE placement machines makes it possible to optimize the deployment of qualified staff and make it more productive by automating routine tasks – a crucial advantage in times when skilled workers are hard to find.

What is crucial for ease of use?

- · Avoidance of manual interventions
- · Robust, fault-tolerant technology
- Streamlined workflows

For what is ease of use particularly important?

- Prevention of mistakes caused by manual assists
- Cost-effectiveness in high-wage locations
- High line availability, also when operating with less qualified staff

How does ASMPT achieve a high degree of ease of use?

- SIPLACE Smart Features
- Efficient NPI processes
- Low-maintenance SIPLACE placement heads
- Maintenance-free and easy-to-install SIPLACE feeders
- · WORKS Programming
- Virtual Assist

Is your investment really profitable? Five key KPIs provide the answer.

When purchasing placement machines, there is much more to consider than just the purchase price. To make informed decisions, you need to keep an eye on long-term operating costs – and thus the total cost of ownership (TCO). A key factor for a profitable investment is overall equipment effectiveness (OEE), which can be measured and optimized using **five key performance indicators (KPIs)**: Real Speed, Quality, Flexibility, Availability, and **Ease of Use**.

Intelligent hardware and software solutions empower operators by automating and simplifying processes

SIPLACE Smart Features: Efficiency through automation and targeted relief for skilled staff

Employees no longer need to do manually what a machine can do. By responding to problems on their own, SIPLACE placement machines relieve the burden on skilled staff, which allows them to focus on more important and demanding tasks.

Your benefits:

- Intelligent fault detection: Defects and/or dirty nozzles get detected automatically.
- **Dynamic pitch adjustment:** Automatic detection of varying pitches in component tapes.
- **Precise placement:** Automatic correction of circuit board oscillations for maximum accuracy.
- **Expanded fiducial search:** Automatic adaptation of the search radius when a fiducial goes undetected.
- **Efficient nozzle management:** Unique nozzle ID for recognizing nozzle types in the magazine.

With SIPLACE Smart Features, everyday work on the production line becomes noticeably easier as manual assists are reduced and workflows become more efficient.

SIPLACE Smart Features SIPLACE placement machines know which nozzle is setup in the magazine ... know when a nozzle is defective or dirty ... learn a tape's pitch automatically ... automatically enlarge searching area when 1st measurement ... detect PCB oscillating, and failed adapt the placement process

Equipment that's productive, not undergoing maintenance

Major components in SIPLACE placement machines are designed to require minimal or no maintenance.

Your benefits:

- Low-maintenance SIPLACE placement heads: SIPLACE placement heads require little maintenance and are easy to keep operational.
- **Fast recommissioning:** SIPLACE placement heads quickly start up again after maintenance.
- **Intelligent calibration:** Internal data memory makes recalibration easier.
- **Maintenance-free SIPLACE feeders:** SIPLACE feeders require no maintenance.
- Maximum availability: Durable components ensure trouble-free operation.

Maximum productivity instead of time-consuming maintenance: All central components of SIPLACE placement machines are designed for minimal maintenance, thus ensuring a continuously high level of availability.

Maintenance More availability and lower costs High speed **Flexibility Odd shape CP20** CPP TH 0.5 h/year 3.7 h/year 2.3 h/year Maintenance free feeder design Maintenance-friendly placement heads and maintenance-free feeders deliver more availability and lower costs.

SIPLACE X-Feeder: Robust, functional, maintenance-free

Feeders are used by the thousands in SMT production and are regularly installed and torn down. SIPLACE X-feeders make this process much easier. With their practical design, they reduce the workload and prevent unnecessary production interruptions.

Your benefits:

- **No maintenance required:** Durable, maintenance-free components save time and money.
- **Robust housing:** For durability and reliability in daily use.
- **Automatic recalibration:** Precise and reliable component feeding with no need for manual adjustments.
- Easy startup without component waste: Efficient handling and reduced reject rates.
- No manual cleaning required with PSA cover tape: Less work, more productivity.
- Automatic download of pitch, feeder speed and pickup point: Optimized processes without manual assists.
- **Fewer operating errors:** Minimized assists for more safety and efficiency.

With SIPLACE X-feeders, employees work more efficiently and achieve their production targets faster and without errors.

SIPLACE X-Feeder

Convenient handling thanks to practical design



Special nozzles and grippers

A wide range of specialized nozzles and grippers is available for SIPLACE placement machines for the reliable handling of unusual housing shapes and particularly sensitive components.

Your benefits:

- **Solutions for all requirements:** Even for very complex special housing shapes.
- **Wide range:** Many special nozzles and grippers are available online for immediate delivery.
- Individual advice: Support team helps with selection.
- Multi Gripper Kit: Modular system that allows customers to assemble special grippers themselves.
- Development and production: To accommodate special customer requirements.
- CPP gripper: Special gripper for CPP collect-and-place head.

ASMPT has the right holding tool for every component - or produces it.

Special nozzles and grippers

A solution for every requirement



New product introduction (NPI): Fast, precise, error-free

SIPLACE software supports multiple CAD formats such as ODB++, which is used to describe the PCB design and – unlike conventional Gerber files, which often require manual adjustments – enables integrated and error-free transfers of data between design and production, resulting in NPIs that are faster, more accurate, and more efficient.

Your benefits:

- Faster NPIs: Shortens the NPI process significantly.
- No manual entries: Reduces sources of errors and saves time.
- **No scrap:** Correct product descriptions ensure maximum precision right from the start.

SIPLACE placement machines reduce the effort required for new product introductions significantly for a trouble-free production flow right from the start.

Easy CAD data import for optimized NPI processes Figure 1 and 1 a

SIPLACE Vision Teach Station

For easy capture of new component geometries, ASMPT offers a measuring workstation that uses the same camera and software as the SIPLACE Vision System.

Your benefits:

- **User-friendly:** Simple and flexible measurement of new components.
- **Parallel:** Production continues during measurement.
- **Simple:** Component Shape Wizard makes scanning easier.
- Fast: Speeds up NPIs.

Components that are not yet in the database can be added in just a few steps.

SIPLACE Vision Teach Station

Introduce new products quickly and securely



ASMPT Academy: In-depth training available at any time

The ASMPT Academy offers a comprehensive portfolio of courses tailored to specific target groups. Classroom training, e-learning, virtual reality and blended learning make it easier to use and maintain ASMPT production technology.

Your benefits:

- E-Learning: At your own pace, at your own workplace.
- Virtual reality: In virtual training rooms on your own computer, also with 3D glasses.
- Instructor-led: Product experts impart specialist knowledge via video, in the training center, or directly at your premises.
- Blended learning: The best of both training worlds e-Learning and instructor-led.

With our tailor-made training programs, employees can easily keep pace with rapid technological developments.



Intelligently integrated for maximum maximum user-friendliness: When hardware and software work together perfectly

WORKS Programming: Central process control

WORKS Programming integrates the programming of solder paste printers and placement machines in a central software application and user interface. With direct CAD imports and an object library for things like components, fiducials, squeegees and paste application, programmers can create production-ready solutions quickly and easily. Market-leading functions for offline simulation and optimization ensure that the production line delivers usable products from the start.

Your benefits:

- Graphical user interface: Intuitive and effective programming.
- **Uniform programming environment:** For all SIPLACE and DEK machines.
- **Central database:** Object data needs to be entered only once.
- **Offline programming:** The production continues to run unimpeded.
- **Offline optimization:** Simulation guarantees usable products right from the start.
- Robust security concept: Granular and personalized access controls.



Particularly in modern high-mix/low-volume SMT manufacturing environments, WORKS Programming with its efficient NPI capabilities is the key to success.

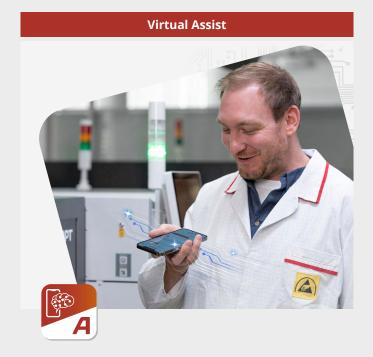
<u>Virtual Assist:</u> Our AI genius for your shop floor

Support software for quick and efficient troubleshooting through knowledge management.

Your benefits:

- Self-learning expert system: Instant access to all relevant information via a single user interface.
- Natural language processing (NLP) technology: Requires no standardized query language.
- Quick trouble cause determination: Knowledge gained in practical use is instantly available to all employees.
- Usable on mobile devices: All relevant information is instantly available anywhere.

The AI- and NLP-based expert system for electronics manufacturing.



Ease of use - Your benefits at a glance

- Smart features reduce employee workload
- Efficient placement heads for every application
- Robust and maintenance-free feeders
- Efficient CAD import and offline programming with simulation
- Fast new product introduction (NPI)
- Online training in the ASMPT Academy
- Extensive nozzle range available online now
- Al-based expert system with NLP technology for fast error analysis and knowledge provision

More about **KPIs**



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