

Shrink your footprint. **Grow your business.**

MYPro series MY300[™] pick-and-place



THE FUTURE of SMT production is anything but predictable. With rapidly changing build materials and fluid media. And more mount and trace - every day. As these highmix challenges go mainstream and mid-volume, real productivity and throughput suffer. And we've only just seen the beginning.

At Mycronic, we've devoted decades of experience to solving precisely these challenges. With the world's most flexible electronics assembly solutions. And the industry's fastest, most precise jet printing and dispensing systems.

With the MYPro series, we've created our most independent, it ensures higher productivity in a smaller footprint, opening your factory up to a range of new

production that we call Mycronic 4.0. Designed Mycronic 4.0 is our fully integrated solution to the challenges of today's most demanding

future is already here. In fact, it's JUST IN TIME.

Introducing the new **MYPro** series The future of intelligent productivity

With the MYPro series it is possible to do more than ever before within a 40% smaller footprint. Mount any component on any board. Handle any batch size with outstanding first pass yield. And jet solder paste and adhesives with zero defects at record speeds. Simply put, it's the smartest way to boost quality and utilization across a vast range of challenging applications.

- More capabilities in less factory space 2 More process steps with less equipment Handle a wider range of products and components
- 4 Less manual operation
- Achieve higher real speed and utilization





The new MY300 Populate more boards. Not more floor space.

Get more jobs done in less space. Switch effortlessly from full volume to batch size one. And handle a wider range of components with uncompromising production quality, total stock accuracy and complete traceability down to the individual PCB ID. The MY300 delivers new levels of precision and flexibility in a faster, smaller and smarter format.

With the MY300 you're well equipped to handle more jobs, boards and components every day, no matter what the future brings. Whichever configuration you choose, the new MYPro series gives you the perfect fit for any intelligent factory, complete with fully automated material flow, faster changeovers and open interface software for full factory-wide connectivity.

40% HIGHER SPACE PRODUCTIVITY

The MY300 makes it possible handle up to 224 feeder positions in a 40% smaller machine footprint than previous models. At the same time, it enables higher real speeds thanks to automated board train handling, automatic conveyor width and job selection, as well as faster tool changes, which take place while the other head is mounting. This fundamental redesign gives you the maximum possible versatility and utilization from your valuable floor space.

AUTOMATED BOARD TRAIN

Fully automated board train functionality is now standard on MY300DX and MY300SX models, which significantly increases throughput with simultaneous loading and unloading of multiple boards. The MY300 series also supports manual board handling and in-line handling of odd-shaped boards while maintaining complete integration with your production process.

NEXT-GENERATION PRECISION

All Mycronic pick-and-place solutions combine rigid machine frames, advanced mounthead technology and Automatic Thermal Adaption for the highest levels of precision. The MY300 adds an improved linescan vision system to take this accuracy into the next generation. It combines three programmable light sources with either 2k or 4k resolution to ensure a future-proof solution for the most advanced components down to 0.15mm pitch. Both options provide extremely precise on-thefly positioning and inspection for any type of miniaturized or specialized component.

EXPAND YOUR COMPONENT RANGE

Fine-pitch CSPs, FCs or BGAs. From the smallest chip components up to 150 mm long connectors. Or stacked, dipped and entirely new package varieties. Whatever the next job demands, our high-speed mountheads and state-of-the-art vision systems make quick work of them all. Even BGAs can now contain an unlimited number of balls in non-regular patterns, helping you to achieve increased throughput in a wider range of applications.

NEW OPERATOR-FRIENDLY DESIGN

Now more user-friendly and accessible, the new MY300 platform is designed to make operation and maintenance easier than ever before.

The future of intelligent productivity. The new MYPro series expands your future capabilities within a significantly reduced footprint.



The redesigned operator console has improved visibility and ergonomics, ensuring trouble-free access for any type of maintenance work. To further reduce disruptive moments, improved waste tape handling makes it easy to reach and unload waste tape from the back of the machine.

NO ERRORS, LESS REWORK

Electrical verification, which takes place before placement, is now performed on the utility wagon's test surface. Using redundant test patterns on a surface instead of jaws, it helps to reduce wear on the contact area while allowing testing of new package types. The process is 100-percent effective at verifying the value of transistors, resistors, capacitors, diodes, and the orientation of active, polarized components. Incorrect components are automatically rejected while the machine continues building the board, thus guaranteeing quality while eliminating time-consuming rework.

SOFTWARE-DRIVEN PROCESS AUTOMATION

At the heart of any Mycronic solution is the richest software suite in the industry. Intuitive, easy to use and simple to integrate with nearly any ERP system, it puts you fully in control of the most agile production platform available. An open interface enables factory-wide connectivity together with full.

Mycronic 4.0 integration for complete material tracking, proactive replenishment, modern SQL databases and enhanced process automation. All to help you continue to meet the demands of tomorrow's intelligent factory.

MATERIAL MANAGEMENT MADE EASY

Mycronic's modular feeder system is designed for accuracy, ease of use and convenience. It gains unrivalled flexibility from a combination of intelligent feeders and magazines for tapes and sticks. Our unique Agilis[™] feeders with no moving parts are easier and quicker to load than any other on the market. And by keeping preloaded Agilis feeders on hand, you can perform set-ups and changeovers even faster. Since all Mycronic magazines can be replenished while the machine is running, you never have to stop production if you run out of components.

In addition, all magazines and Agilis feeders have a unique identity that links them to the machine's system software. This enables the machine to recognize the presence, absence and location of components – a valuable asset when it comes to keeping track of inventory, since the machine knows exactly how many components are left on each tape reel. Reprogramming of pick positions is also eliminated. Instead, the system software instantly recognizes the feeder, regardless of machine or position, and reoptimizes the mounting program to maintain the highest levels of efficiency.

MORE FEEDERS. MORE OUTPUT. LESS SPACE.

Thanks to the machines' compact design, up to 224 intelligent feeders can be accommodated within a surprisingly small footprint. The design also accomodates a larger board size capacity, which not only allows you to handle more variations in board design but also leads to significantly increased throughput using the board train function.



MY300DX-13/17

High-speed all-in-one mounter. Featuring up to 224 feeder positions with a top speed of 40,000 components per hour.

MY300SX-11/15



Flexible all-in-one mounter. Featuring up to 192 feeder positions with a top speed of 24,000 components per hour.

MY300LX-11/15



All-in-one mounter. Featuring up to 192 feeder positions with a top speed of 16,000 components per hour.

MY300HX-9/13



High-speed chip mounter. Featuring up to 160 feeder positions with a top speed of 45,000 components per hour.

MY300EX-9/13



IC and odd shape mounter. Featuring up to 160 feeder positions with a top speed of 11,000 components per hour.





The Mycronic software suite includes:

- Full visibility planning and fast, error-free converting of CAD and material data
- connection module
- Complete traceability down to individual PCB level
- User-friendly material handling with e-labels for paperless kitting guidance
- Proactive replenishment monitor with automated material delivery

• 100% stock accuracy with scannable feeders and ERP

From high capacity workcell **down to batch size one**

Combine two MY300DX lines in a single workcell, and you have a full 160,000 CPH placement capacity at your control. For continuous high-speed production this means a proactive, fully automated material flow, run by fewer operators.

Mycronic has always made it easy to transition from volume production to small test batches or prototypes. No re-programming, no re-tooling and no reconfiguring of vision camera parameters. Simply a non-stop workflow from volume production down to batch size one. With just a single operator, you can maintain continuous production under all circumstances, thanks to software-driven proactive replenishment and complete material tracking. And with all of this in a single vendor, it's also possible to reduce training and maintenance costs while allowing for higher degrees of freedom in staffing and planning decisions.

MY300DX-MORE CAPACITY IN LESS SPACE

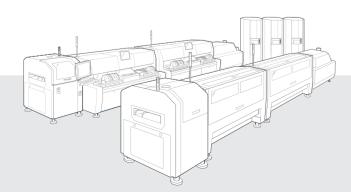
High

capacity

With 448 feeder positions per line, the MY300DX-17 gives you a full 40% more feeder capacity per meter of line length than previous generations. Or take advantage of the MY300's smaller footprint by incorporating additional process steps in your line, should the need arise. With 18 nozzles per machine, you will be capable of mounting a vast mix of component types, resulting in excellent throughput.

MYTOWER – AUTOMATED NEAR-PRODUCTION STORAGE

The MYTower is a highly flexible, automated and expandable buffer storage unit. Designed for nearproduction deployment, it ensures that the right components remain stored in the correct place and in a controlled atmosphere, always ready for a quick and smooth line changeovers. With just two square meters of floor space, it can store up to 1,988 reels whilst recording all movements and quantities to ensure complete traceability.



MY300DX-13/17

High-capacity workcell. Two MY300DX lines including the MYTower for automated near-production storage.



Key benefits



- 160,000 CPH within one workcell
- On-the-fly changeovers
- Near-production storage and automated replenishment
- Electrical verification of resistors, capacitors, diodes and transistors

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• Full traceability

The high-mix workhorse **– now with 40% more feeders**

High mix

For those who demand versatility, two MY300DX machines arranged into a single line form an agile, modular production unit capable of meeting any future needs. Thanks to a more space-efficient design, it now packs in a full 40% more feeder capacity within the same line length as previous models.

Whichever configuration you choose, you'll be able to reduce production costs and delivery times thanks to high speeds, high feeder counts and full visibility planning. And because all equipment is based on a single platform and source, software packages can be added as needed, always ensuring full traceability down to PCB ID level.

TECHNOLOGY THAT STANDS THE TESTS OF TIME

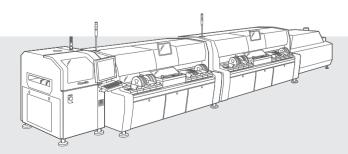
Mycronic offers a range of value-added packages specially tailored to the demands of subcontractors. This includes a fully future-proof solution combining software with services such as operator training courses, production and process support as well as process and knowledge courses. With the right training and the right equipment, your investments will pay off for years to come.

HANDLE ANY FUTURE COMPONENT

Thanks to a new x-wagon with updated highspeed mountheads and up to 4k resolution vision systems, the MY300DX reaches top speeds of up to 40,000 components per hour and handles nearly any component you might need for years to come. The model's 18 nozzles, together with 448 feeder positions in one line, ensure excellent throughput for any mix of component types.

SPEED UP YOUR SET-UPS

Package definition can be created in seconds using the AutoTeach function. Just show the unknown package to the vision system, and all geometrical data is measured automatically — saving you a significant amount of time when setting up new jobs. Together with an improved 2k or 4k resolution linescan camera, this makes it faster to handle an immense range of new miniaturized and specialized components.



MY300DX-17

Flexible high-capacity line. MY300DX-17 Synergy line rated at 80,000 CPH with 448 feeder positions.





Key benefits

- 80,000 CPH with up to 448 feeder positions
- A complete SMT assembly solution from a single source
- Fastest changeovers in the industry
- Full traceability

Fully automated short series production

As batch sizes shrink and the number of process steps expands, uptime doesn't have to suffer. By combining software-driven solder paste and assembly fluid application with high feeder capacity, continuous operation is both easy and economical — down to small batch sizes, or even a single board.

AUTOMATION DOWN TO THE SMALLEST DETAIL

Mycronic's planning software makes it possible to analyze hundreds of work orders and organize them into family kits, perfectly sized to ensure hours of non-stop production. With the help of proactive replenishment notifications, you'll finally be able to close the efficiency gap between volume and short-series production. Now with automated board train functionality, job selection and conveyor width, you'll also benefit from operator-independent production with completely centralized programming.

BUILD PRODUCTS, NOT INVENTORY

With changeovers this easy, any job is possible. Batch sizes can be optimized for downstream operations including inspection, testing and box build. And instead of building stock inventory, you can build-to-order, thereby reducing risk and working capital while removing the risk of oldrevision products.

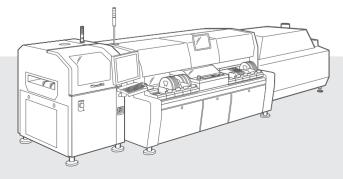
MY300SX - THE FUTURE OF FLEXIBILITY

At up to 24,000 CPH, the MY300SX gives you the flexibility you need to tackle tomorrow's challenges. It is ideal for high-mix production, handling up to 192 feeders and an endless variety of components. Advanced mountheads, state-of-the-art vision systems and a wide selection of conveyor sizes all ensure that the line is able to accommodate a range of board sizes, shapes and technologies. Based on the same technology platform as the MY300DX, the MY300SX features a single mounthead carrier that picks components from both sides of the machine.

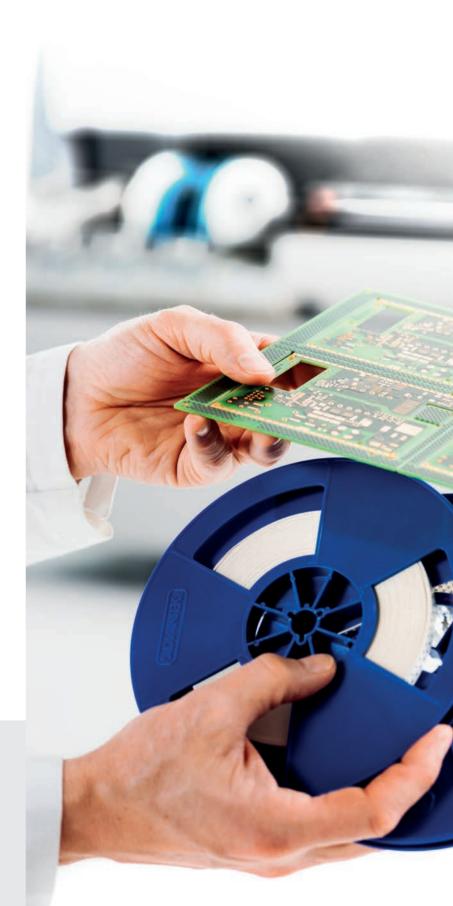
Fully

automated

This provides incredible flexibility while maintaining the ability for on-the-go setups and seamless changeovers from one production run to another. The high-precision linear drive and distributed servo technology provide the ability to increase throughput, while continuous accuracy calibration maintains the high level of quality that you would expect from a Mycronic machine.



MY300SX-11/15 Automated short series production. MY700JX in-line with a MY300SX.



Key benefits

- Full component range in one machine
- Fastest set-ups and changeovers in the industry
- Capable of pin-in-paste, PoP, QFN, board cavities and more
- Stencil-free printing
- The world's fastest assembly fluid dispensing system
- On-the-spot board revisions
- Handle short tape strips and nonstandard carriers



The all-in-one future-proof solution

Combine a MY700 jet printer and dispenser with a MY300 pick-and-place machine, and you'll never have to say no to another customer. Instead, you'll be able to handle any package or assembly fluid — and place it on nearly any surface — for the entire lifespan of your machines.

Although technologies may change, as a start-up contract manufacturer you'll always be able to adapt.

HANDLE ANY ORDER – TODAY AND TOMORROW

Whether your components arrive in short tape strips, matrix trays with oversized pockets or just a plastic bag, the flexible system software of the MY300 turns nearly anything into a component feeder. And with the stencil-free printing and assembly fluid dispensing of the MY700, even last-second customer changes can be done on the spot, whenever necessary. Whatever quantity, whatever technology and whatever size component, this is a pair of machines that grows with your business.

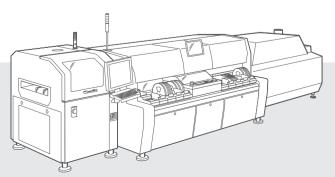
MY700-DOUBLE YOUR CAPABILITIES

The MY700 is completely software driven, applying solder paste or any other assembly fluid onto any type of board with high speed and precision. QFNs, pin-in-paste, package-on-package, encapsulation or other applications that have yet to be invented — all of these techniques can be carried out with unmatched precision and flexibility. Now with dualhead capabilities, the MY700 allows you to combine solder paste and assembly fluid dispensing — all in a single machine.

All-in-one

With the MY700, the dual jetting heads can be used to achieve both small-dot and large-dot jetting at speeds of more than one million dots per hour. And with no need for stencils, you'll never have to compromise on solder joint quality, time-consuming rework or stencil changes. Instead of days, you can prepare jobs in minutes. If you do 2-3 setups a day, using more than 50 stencils a year, you'll quickly realize the benefits. If total solder paste volume control, quality consistency and complex pin-in-paste or other challenging applications are critical, you'll understand even better.





MY300SX/LX All-in-one solution. MY700 in-line with a MY300SX/LX.

Key benefits

- Full component range in one machine
- Fastest set-ups and changeovers in the industry
- Capable of pin-in-paste, PoP, QFN, board cavities and more
- Stencil-free printing
- The world's fastest assembly fluid dispensing system
- On-the-spot board revisions
- Handle short tape strips and nonstandard carriers



FOR DECADES, Mycronic's innovations have been changing the face of the high-mix SMT industry — from stencilfree jet printers and the world's fastest jet dispensers, to fast-loading intelligent feeder systems, automated near-production storage and advanced software solutions.

All one-of-a-kind technologies. And all with one goal in mind: to simplify and streamline an increasingly complex production environment with a single integrated intelligent factory solution.

With Mycronic 4.0, all of this collective knowledge and innovation amounts to a complete, agile manufacturing environment that masters the complexities of modern electronics production.

The result is one highly automated, intelligent factory for just-in-time production, with 100% stock accuracy. One that adapts to meet your needs and solve future challenges – before they arrive.

At Mycronic, we believe that future of SMT production is already here.

IS YOUR FACTORY PREPARED?

Fully integrated with the MYTower automated material handling system, MYCenter software suite and award-winning Agilis feeder systems, the new MYPro series is designed for full compatibility with the Mycronic 4.0 intelligent factory.



Bringing tomorrow's electronics to life

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