

MY-Series

All-in-one solutions for true flexibility in high-mix production

For a fast changing world

MYDATA[®]

All-in-one solutions, built to last a lifetime.

Based on a single platform, MY-Series machines combine feeder capacity and speed with the ability to place any component – fine-pitch, BGAs, QFPs, chip scale BGAs, CSPs, flip chips and 0201s. So whether you're building prototypes or running high-volume, in-line production, MYDATA machines can answer virtually all your placement needs.

Plus, with MYDATA's split-axis design and rigid construction, our machines will remain reliable and accurate far into the future.

Machines that grow alongside your production needs

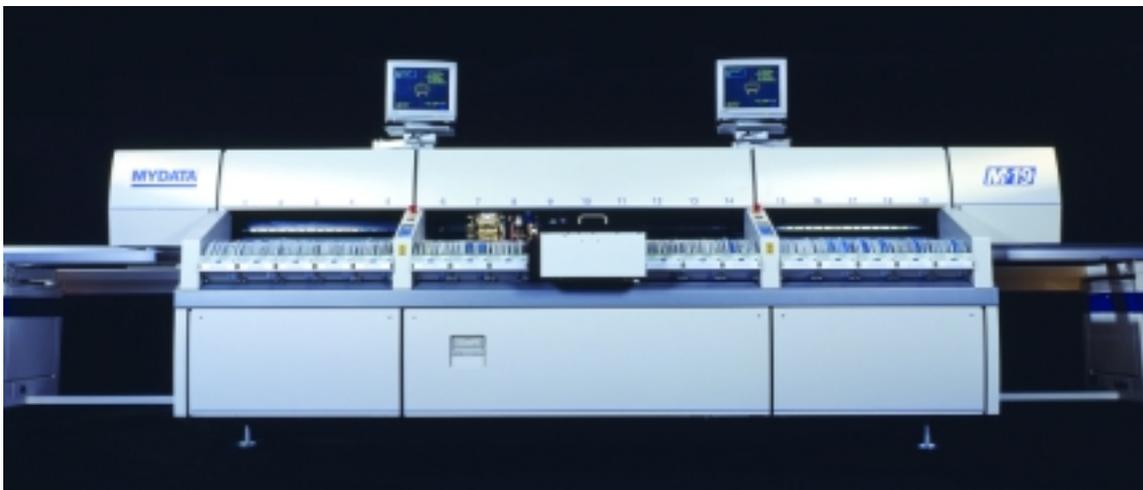
Whether you're starting up a new business or adding a full high-mix, high-volume production line, MYDATA offers a range of placement machine options and solutions.

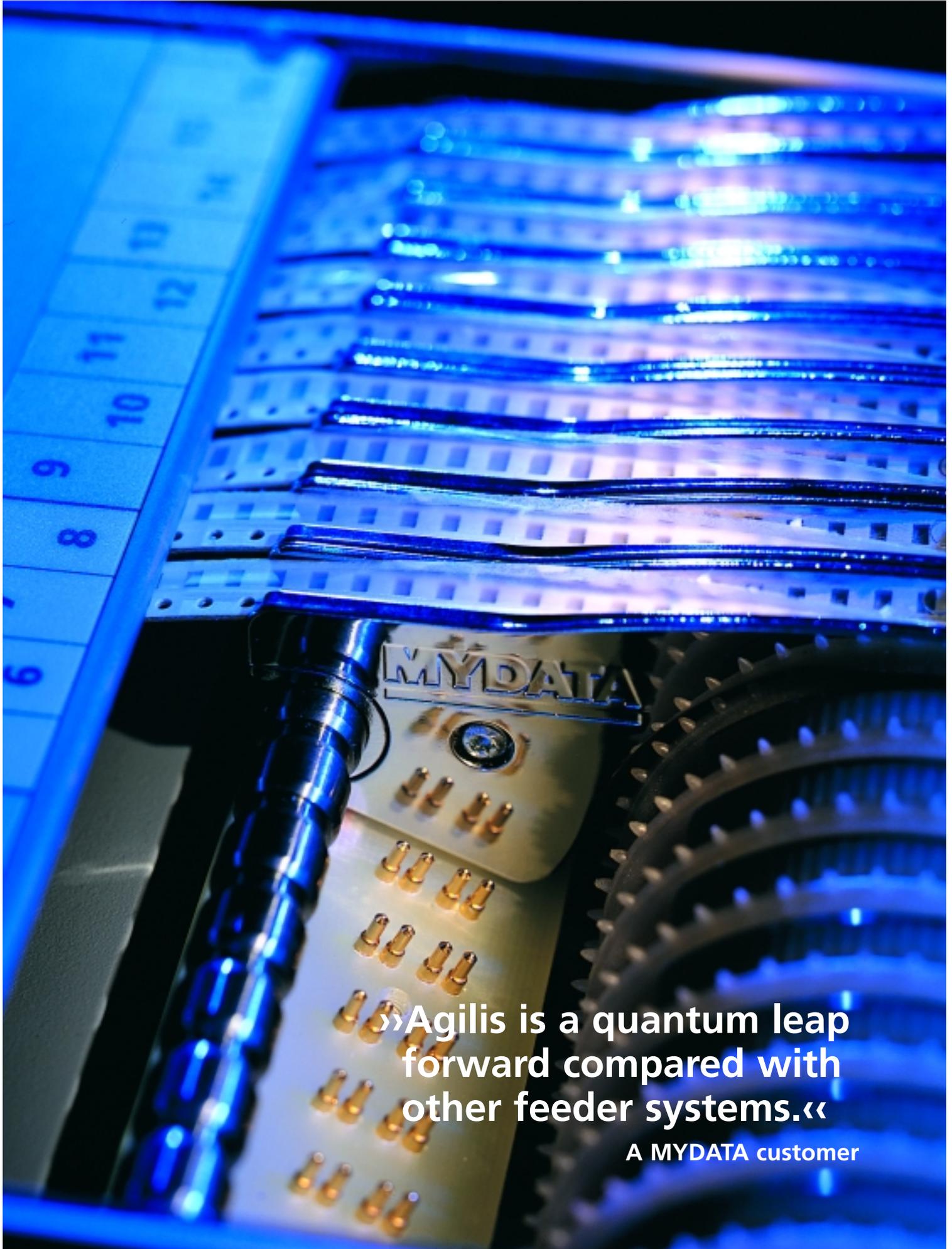
Our machines vary in size according to your feeder capacity requirements. Choose from our standard and compact MY9 and MY12, or our larger MY15 and MY19. Or combine two machines for a powerful in-line solution called MYSynergy. Since MYDATA machines

are backward-compatible and can easily grow with your business, you may never have to replace an old model. Simply upgrade your hardware, add software functionality, or process capacity and speed, as your production needs increase.

Key benefits

- A single machine concept: one machine can produce any board with any component.
- Rigid split-axis design for long-term accuracy.
- Flexible, stable and easy-to-use software for full production control.
- Designed for fast changeovers and maximum uptime.
- All MYDATA machines built since 1984 can be upgraded with the latest feeders, accessories and software.





»Agilis is a quantum leap forward compared with other feeder systems.«

A MYDATA customer

Intelligent feeders – the key to fast setups and changeovers.

MYDATA's modular feeder system is designed for ease and convenience. It gains its unrivaled flexibility from a combination of intelligent feeders and magazines, a variety of tape, stick, tray feeders, and our unique Agilis™ feeder system.

Agilis feeders are substantially easier and quicker to load than others on the market. And by keeping pre-loaded Agilis feeders on hand, you can perform setups and changeovers even faster. Since all MYDATA magazines can be replenished while the machine is running, you never have to stop production if you run out of components.

Because most MYDATA magazines hold up to 16 tape reels, you save a great deal of time by performing multiple feeder changes simultaneously. In addition, all magazines and Agilis feeders have a unique identity that links them to the machine's operating 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. In addition, pick positions never have to be reprogrammed. Instead, the system software recognizes the feeder instantly, regardless of machine position, and reoptimizes the mounting program to maintain high efficiency.



Hours saved monthly by using Agilis feeders*

No. of feeders to be loaded per day	90 sec. per loading	60 sec. per loading	30 sec. per loading
10	4 hrs	3 hrs	1 hr
200	89 hrs	6 hrs	22 hrs
1,000	444 hrs	278 hrs	111 hrs

*20 working days per month

Feeder and magazine benefits

- Feeders and magazines can be inserted in any line, in any machine, in any position.
- Feeders and magazines can be reloaded while the machine is producing.
- Barcodes on magazines and feeders enable inventory and component data tracking.
- All magazines are backward-compatible, so your initial investment can be used for new and old machines.
- Eliminate the need for expensive feeder carts.
- Save valuable production floor space with small feeders and removable bins.

Mountheads designed to meet the demands of high-mix, high-volume production.



When thinking about your placement needs, you can depend on MYDATA's Midas™ mounthead. Prepared to mount all component types – from ultra-fine pitch and large components to 0201s, complex CSPs and CCGAs – our standard mounthead is fast, reliable and accurate. Midas can also be equipped with an assortment of tools for placing odd-shape components, like gripper tools for connectors.

In combination with MYDATA's optional electrical verifier, you can cut down on difficult and expensive rework and benefit from full traceability. The optional verification system ensures that all PCBs are assembled with components that have the correct electrical value and dimension – without slowing down the mounting process.

Increase your productivity with the HYDRA *Speedmount*

Whether you run a large volume operation or are looking to increase your production capacity, the optional HYDRA *Speedmount* is designed for high-mix, high-

volume production. The HYDRA can handle eight different components simultaneously, and significantly increase your throughput.

When combined with our standard Midas mounthead, you have a machine for both high-speed mounting and fine pitch placement on a single platform. MY-Series machines can be upgraded with a HYDRA at any time.

To increase throughput, the HYDRA includes an Automatic Tool Exchanger (ATE). The ATE changes the mount tools to enable different sized components to be assembled in the same mount cycle. The TPSys system software optimizes the mount cycle automatically to ensure maximum productivity.

Mounthead benefits

- The Midas mounthead handles all types of components, from 0201s to large QFPs, from FCs to BGAs and long connectors.
- Add the HYDRA *Speedmount* mounthead for increased speed and throughput and get a complete solution for any production volume.
- Special mount tools for handling odd-shaped components are available.
- Reduce rework and the risk of placing the wrong component size or value with our electrical verifier (RCDT).

MY9, MY12, MY15 and MY19



MY9

Feeder capacity: 96 x 8 mm tapes;
or 64 x 8 mm tapes and 32 JEDEC trays with TEX™.



MY15

Feeder capacity: 192 x 8 mm tapes;
or 160 x 8 mm tapes and 32 JEDEC trays with TEX™.



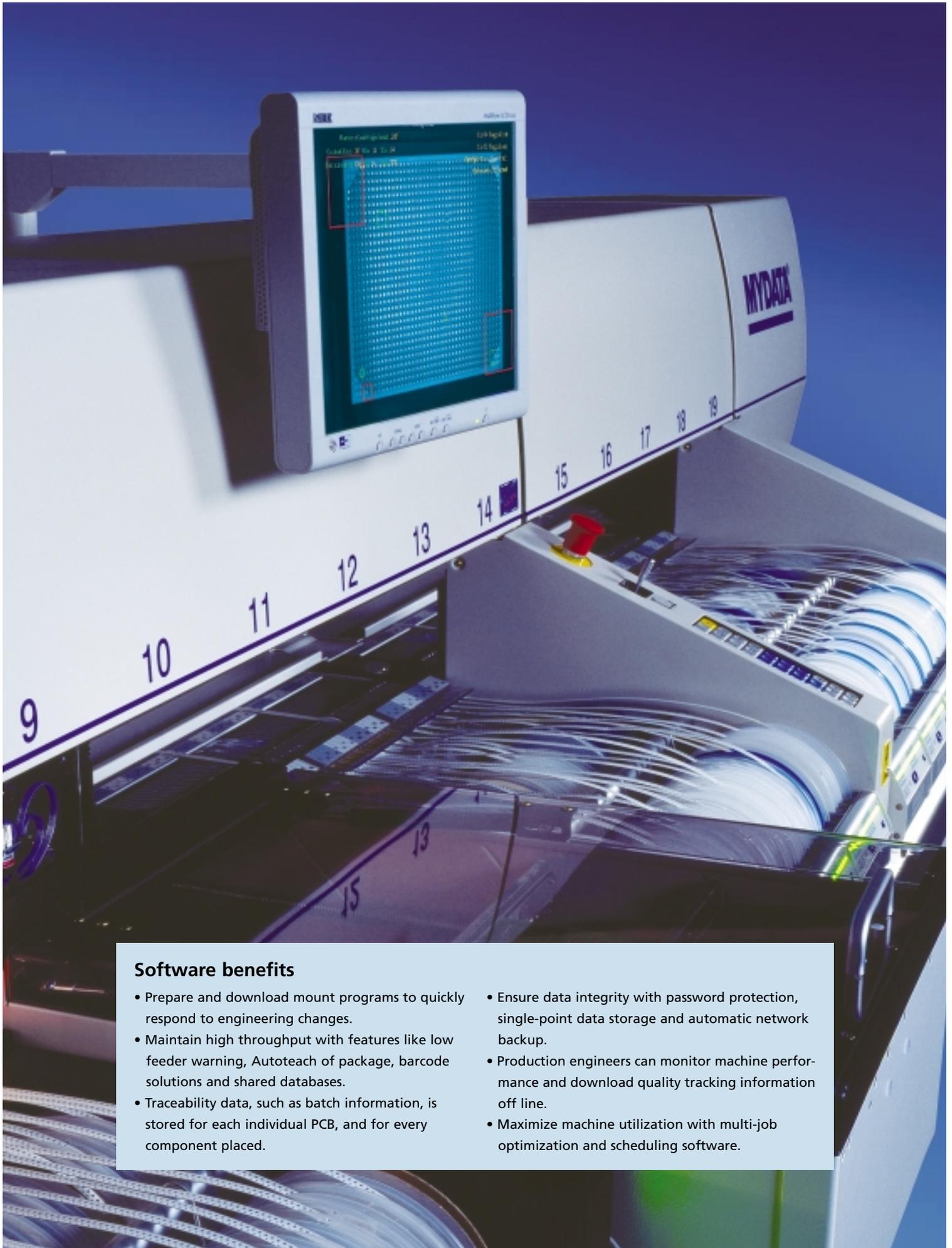
MY12

Feeder capacity: 144 x 8 mm tapes;
or 112 x 8 mm tapes and 32 JEDEC trays with TEX™.



MY19

Feeder capacity: 256 x 8 mm tapes;
or 224 x 8 mm tapes and 32 JEDEC trays with TEX™.



Software benefits

- Prepare and download mount programs to quickly respond to engineering changes.
- Maintain high throughput with features like low feeder warning, Autoteach of package, barcode solutions and shared databases.
- Traceability data, such as batch information, is stored for each individual PCB, and for every component placed.
- Ensure data integrity with password protection, single-point data storage and automatic network backup.
- Production engineers can monitor machine performance and download quality tracking information off line.
- Maximize machine utilization with multi-job optimization and scheduling software.

Software that simplifies your operation and enhances productivity.

From the beginning, MYDATA has used software to increase flexibility and productivity. That's why, with every machine, you'll get software that offers both unparalleled stability and user-friendly interfaces.

MYDATA's Manufacturing Process Management (MPM) software suite features a web interface and Autoteach of components. It also allows you to set up new jobs, create new package data, and connect and obtain information from your intranet – without ever having to stop the machine. And because MYDATA's system software is Linux-based, it has the capacity for multiple users and gives you control over multi-board production.

Optimization and line-balancing software for calculating production time

MYSpeed™ is an optimization program that helps achieve optimal kitting and maximize throughput by optimizing all the machines in your line. Whether you're running a single prototype or a high-volume line with several machines, MYSpeed's feeder optimization and line-balancing capability ensures that each machine is used in the best way possible.

MYSpeed even enables you to precisely plan build times and quotes, so that your customer can count on accurate production costs.

Software packages customized for your business

As part of the MPM software suite, MYDATA offers additional applications to boost your productivity – like MYCam™, MYDATA's expert job preparation software.

Use MYCam to quickly and easily convert CAD and bill-of-materials information into completed machine programs. And benefit from improved process docu-



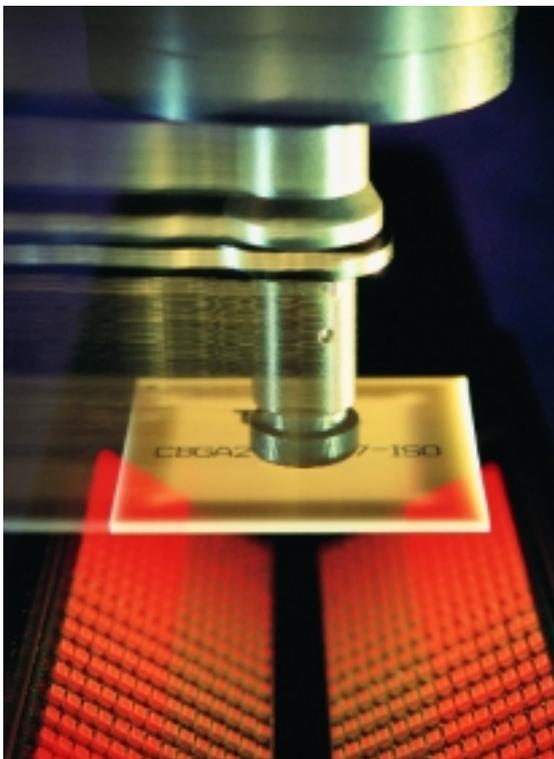
mentation, color-coded inspection and assembly aids, process routing and more.

As your operation grows, you can then optimize your entire line. Or purchase the MYLabel™ barcoding system, and add unlimited tracking potential to your existing warehousing system. MYLabel keeps track of quantity, batch ID, stock location, and more – for each and every component reel.

You can fully automate your preparation process from converting CAD files and mount data, to magazine kitting information for line balancing and bill of materials – with MYDATA's MPM software suite. All the information is accessible throughout your facility, and from any machine.

Let MYDATA sharpen your vision.

Get the best placement results from MYDATA's® Dual Vision Camera (DVC), the standard vision system on all MY-Series machines. The DVC is made up of two cameras that inspect, center, and provide best-fit placement of components. Equipped with programmable lighting in the cameras, the DVC ensures optimal illumination for all package types. It can inspect both large and small components, fine pitch to complex packages – without loss of detail or precision.



The Linescan Vision Camera for high-speed performance

MYDATA's Linescan Vision Camera (LVC) is an optional high-speed positioning system that inspects and aligns fine pitch components "on-the-fly." Best when mount speed is critical, the LVC ensures placement of all leaded and BGA-type components.

Autoteach – for easy package programming

A new package definition can be created in seconds by using the Autoteach function. Just show the unknown package to the vision system, and all geometrical data is measured automatically, including the position of the leads, lead width, ball diameter and pitch. Even if the component is not perfect, lead positions will be fine-tuned to fit a standard pitch and thereby eliminate measurement errors.

Vision system benefits

- Easily create new and complex component packages using Autoteach.
- High-resolution Dual Vision Camera (DVC) handles both large components and the smallest of pitch (e.g., flip chips).
- Get high-speed, on-the-fly inspection with our Linescan Vision Camera (LVC) option.
- Increase throughput and component range with the Linescan Vision Camera (LVC) option.

In-line configurations to meet your production needs.



Thanks to MYDATA's modular design, our two internal conveyor solutions – T-Style and Pass-Through (PT) – can be fitted on any machine. No matter what board size or shape, MYDATA has a solution that fits the specific demands of your production environment.

Assembly lines for today's production facilities

Together with our modular conveyors, we offer a full range of board handling equipment, such as gates and workstations, to fully adapt to your production process and meet your placement needs.

Your large-board production can now be automated with our in-line T5 and T6 conveyors, providing a complete solution for the safe and easy handling of large and thick boards. Plus, with our manual-load adaptors, you can turn your in-line machine into a single plat-

form in seconds. MYDATA offers a complete range of manual-load tables to handle a wide range of shapes and sizes. The largest option is our ML7.

In-line benefits

- Handles virtually any PCB thickness, shape and size.
- Complete in-line large-board handling solution.
- Automatic mount program and PCB identity with barcodes.
- Board train functionality for increased throughput and reduced board-transfer time.
- Adaptors for quick conversion between in-line and stand-alone.
- Customized board-handling solutions available.

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