
SMD Tower™

**Component storage
just got intelligent**



MYCRONIC

When passion meets innovation ●

Increase the power of your production

In today's SMT production environment, time is money. So rather than spending valuable time looking for components stored in different locations or returning material to stock, the Mycronic SMD Tower provides more intelligent and automatic access to component reels and trays. This is how the Mycronic SMD Tower can have an immediate positive impact on your productivity.

The Mycronic SMD Tower boosts production efficiency with:

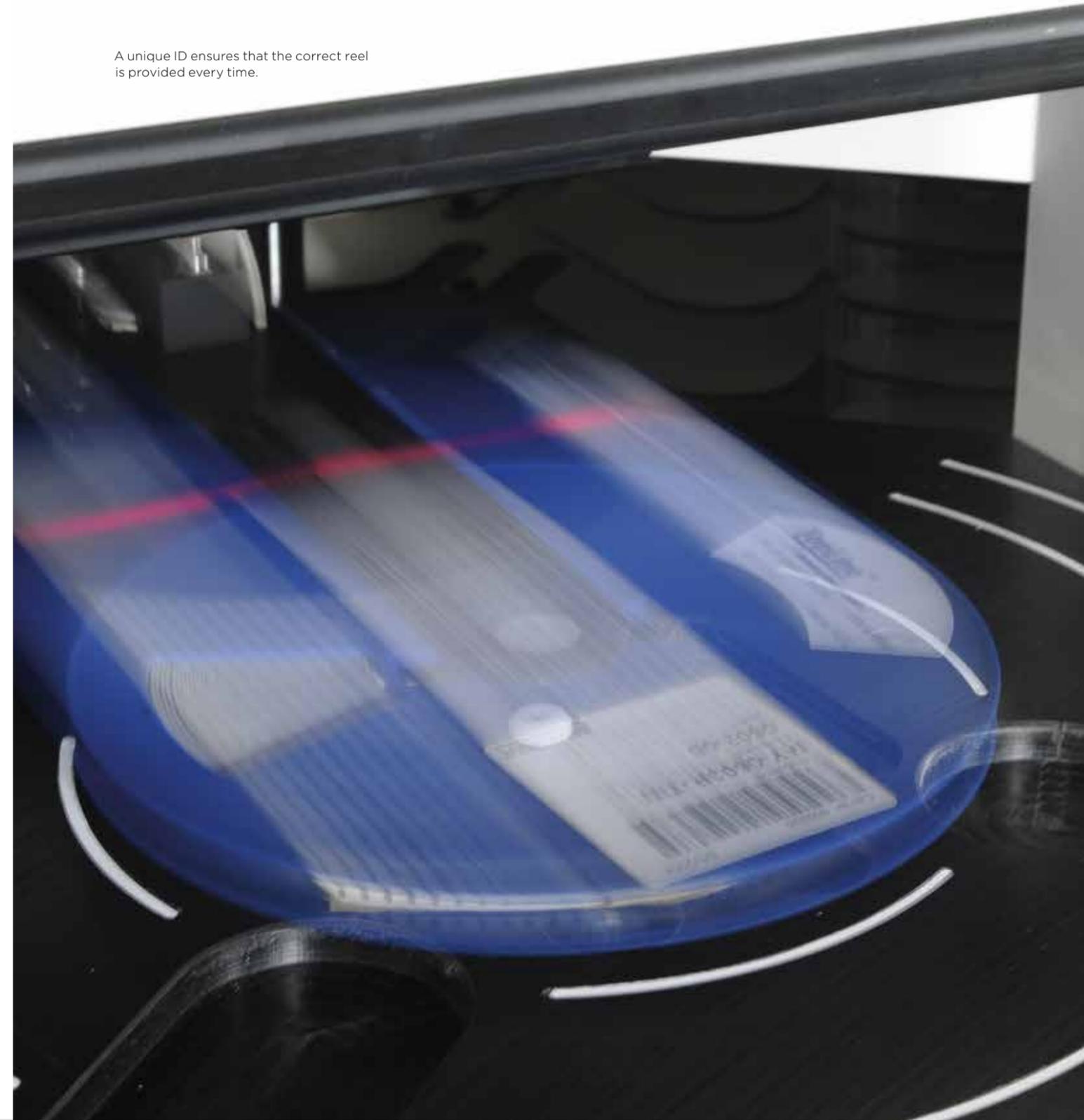
- Fast storage and retrieval of components.
- Automated recording of all stock movements.
- No mix-ups of components in stock.
- Controlled environment and floor life monitoring for MSD components.
- Flexible, compact, high-capacity storage space next to production lines.

Compare this to manual processes that practically 'pre-program' mix-ups, and inflexible storage management systems that make integration into your ERP system or production equipment difficult.

The Mycronic SMD Tower can be used with any pick and place machine brand and enables space-saving, fast and error-free storage of components.



A unique ID ensures that the correct reel is provided every time.



Safely store and retrieve any component

Offering the correct component in the right place and in a controlled atmosphere, ready for a quick and simple set-up in your SMT line, the Mycronic SMD Tower greatly enhances production efficiencies. This highly flexible and expandable buffer storage unit holds up to 980 different SMD reels or up to 875 trays, and can dispense any one you request in just a few seconds.

Retrieval times can be reduced even more when storage capacity is multiplied by combining several Tower units that work in parallel. The Tower may also be equipped with an optional adsorption unit that feeds in dry air to produce a controlled storage atmosphere with a relative humidity of less than 5 percent. This allows you to store components sensitive to humidity (MSDs) as per IPC/JEDEC standard O33B. In addition, air temperature and humidity are recorded and provided as 'traceability data'. MSD utilization duration can be monitored as well.

CONVENIENT AND INCREDIBLY QUICK

Whether you request a single reel or tray, automatically process a kitting list or entire assembly program, the SMD Tower's database records every movement and keeps track of all stored reels and component quantities. Using a unique identification code ensures that the correct component is always provided or stored. Set-up errors due to mix-ups are virtually impossible.

Fast and convenient handling of reels and trays.



Tray box for up to three JEDEC trays.



Simply place the reel you've chosen to store in the terminal and press the 'Start' button. The integrated barcode scanner automatically identifies the reel and transfers the component information to the PC. The database software immediately places the reel in its assigned location. Within seconds, the SMD Tower is ready to accept the next reel.

Retrieval is just as easy. Simply enter a part number, choose a kitting list or select an assembly program. The items are then retrieved sequentially and booked out.

COMPACT AND FLEXIBLE

By making the most of a compact circular design – built around a central triple axis pick-up – the SMD Tower enables fast and error-free storage of reeled components and trays in just one square meter of floor space.

The SMD Tower can be equipped to store reels between 8 mm and 56 mm thick – with a diameter of between 100 mm (4") and 380 mm (15") – in any combination permitted by the total given height of the system. If you choose, trays can be stored in place of reels – or in mixed storage configurations with reels. The choice is yours.

INCREASE UP-TIME AND MINIMIZE SEARCHING FOR COMPONENTS

To make errors is human, and expensive. Conventional, manual access storage systems carry a high risk for mix-ups. Depending on when mistakes are noticed, a great deal of damage may already have occurred. At best, time for set-ups increases and

valuable production time decreases. In worst-case scenarios, entire production batches are beyond repair. In addition, searching for misplaced reels can be avoided completely. The SMD Tower makes such errors a thing of the past. After a few averted mix-ups, the investment may already have paid for itself.

MULTIPLE WAYS TO INTEGRATE EFFICIENCY INTO PRODUCTION

Until now, reels had to be located and retrieved one by one, from rigid, space-consuming storage systems. By comparison, the Mycronic SMD Tower provides you with an automated and intelligent storage system. Plus, integrating proprietary storage management systems into available database structures is fast and easy with the remote order protocol.

While its primary application is as a buffer storage unit for SMD assembly, the Tower can also be used as a repair storage container in conjunction with AOI systems, as access-protected safety storage for high-value components, or as MSD storage for humidity-sensitive components.

The high degree of flexibility that allows seamless integration into your production environment further enhances the SMD Tower's quick return on investment.

Intuitive, powerful and versatile software

The control software, with its simple, intuitive interface runs on a standard PC and communicates with the SMD Tower via the local area network. The software contained in the first unit's scope of delivery can manage an unlimited number of SMD Towers and external storage locations.

The software's client version works independently of the SMD Tower and offers access to all databases. For example, the client software can be used in the incoming goods department to record new components as well as their barcode registration. By doing so, new components will already be registered as they proceed to manufacturing and can be stored immediately.

The 'Job Scheduling Module' is an important part of the software. The module manages several order lists. These lists are arranged chronologically by production dates in the scheduling module. Colored indicators in front of the corresponding article signal whether the order can be manufactured completely, in part, or not at all.

Additional powerful functions such as retrieval to external locations, job preparation or automatic minimum stock monitoring also help you avoid unwanted production stoppages.

TRACEABILITY

Comprehensive concepts for backtracking through individual production steps are increasingly becoming a requirement for SMD manufacturers. The SMD Tower software stores all relevant information in the database, such as stock movements, temperature and relative air humidity, SMD utilization duration, and all user activities. All traceability data are also available as export files.

BARCODE LABEL DESIGNER

The software comprises a label designer module to generate unique barcodes. Depending on label size, all data may be represented as barcode or as plain text. A carrier barcode generator automatically provides a consecutive ID code.

COMMUNICATION WITH SMD PRODUCTION MACHINES

The SMD Tower system software has two modes of operation - Standard mode and MYCenter mode.

The standard mode offers full functionality for any production environment. In addition, the software is designed to allow easy integration to exchange data with SMD production machines. The software can then serve as a set-up station and allows the user to assign articles to intelligent feeders via barcode ID. Data is then transferred to the production machine.

In MYCenter mode, set-up support, feeder assignment, job planning and much more are managed by MYCenter and MYPlan software. When using the MYCenter mode, some functions in the SMD Tower system software are simply de-activated in order to offer extended functionality and seamless integration.

THE FOLLOWING DATA IS MANAGED WITH THE REMOTE ORDER PROTOCOL

Article name and comments	FIFO
Identification (barcode carrier)	Lead-free
Storage location	Design
Manufacturer	MSD/MSL
Packaging (reel, tray, etc.)	Reference
Total/minimum stock	User-defined fields



Registration of new reels can be made at the incoming goods department with the client software.

The MYCenter connection enables a tight integration with Mycronic softwares.



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