

# Component storage just got intelligent

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MYTower™



**THE FUTURE** of SMT production is anything but predictable. With rapidly changing build schedules. A proliferation of new materials and fluid media. And more advanced components to locate, kit, mount and trace—every day. As these high-mix challenges go mainstream and mid-volume, true 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.

Now, with the new MYTower series, we've created our most compact and intelligent storage system to date. Fully operator-independent. It ensures higher productivity in a smaller footprint, opening your factory up to a range of new possibilities.

It's all part of the highly automated, just-in-time production that we call Mycronic 4.0. Designed to enable 100% stock accuracy, full visibility planning, automated replenishment and more, Mycronic 4.0 is our fully integrated solution to the challenges of today's most demanding production environments.

Whatever your ambitions, the 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 or series with zero changeover times. And jet solder paste and adhesives with high precision at record speeds. Simply put, it's the smartest way to boost quality and utilization across a vast range of challenging applications.

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



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



# Increase throughput and **maximize utilization**

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 MYTower provides more intelligent and automatic access to component reels and trays. This is how the Mycronic MYTower can have an immediate positive impact on your productivity.

The Mycronic MYTower boosts production efficiency and enables a smarter way of working:

## **BOOST YOUR PERFORMANCE**

- Fast storage & retrieval of components
- Remove unnecessary material movements
- Maximize assembly line utilization
- Reduce manual labor
- Reduce retrieval times

## **SHRINK YOUR FOOTPRINT**

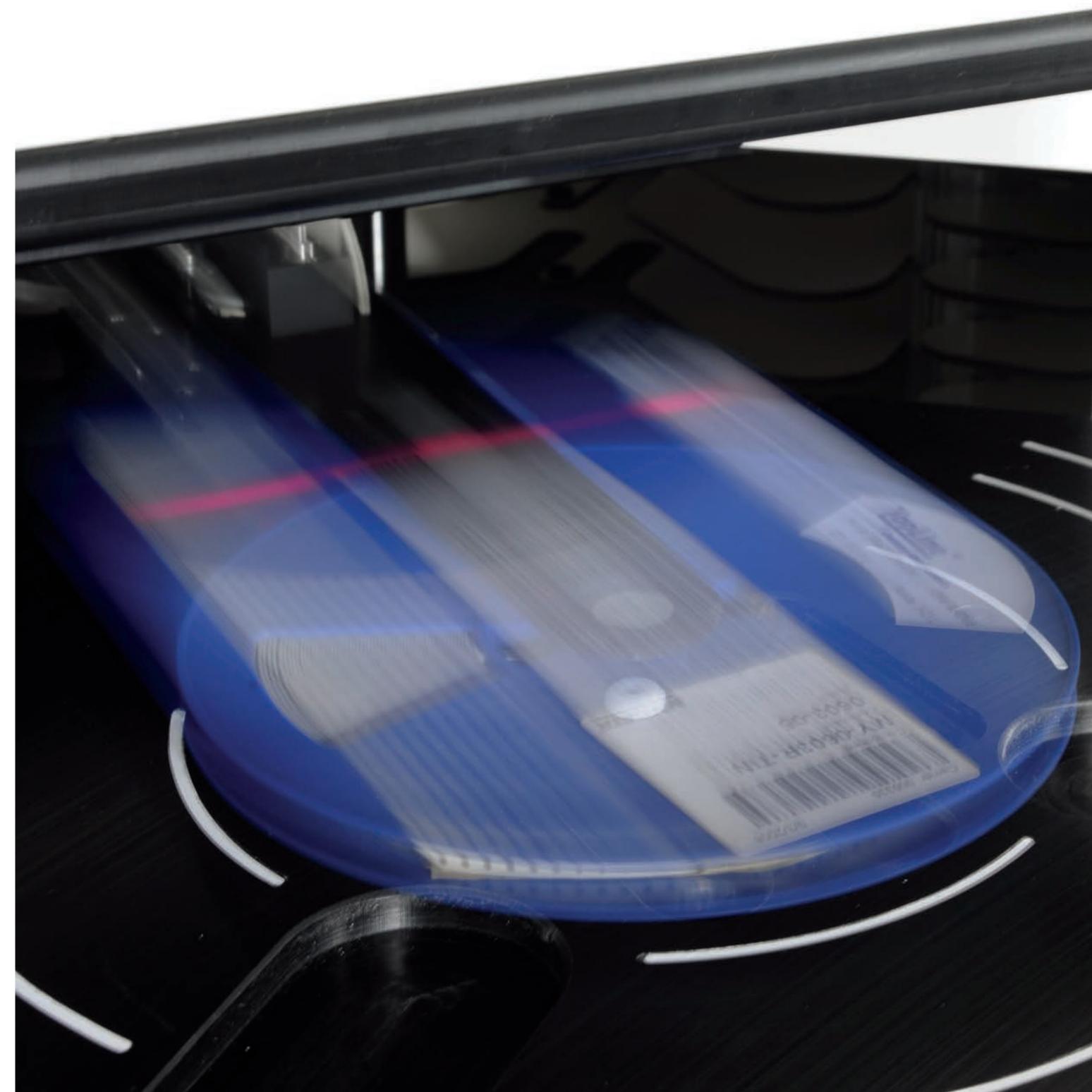
- Minimize floorspace, maximize capacity
- Flexible placement within production

## **ENHANCE YOUR INTELLIGENCE**

- Easy integration with any system
- Controlled environment and floor life monitoring for MSD components
- Alarms for material availability
- Traceability functions
- Quantity control
- ERP & MES connectivity



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



# The new MYTower series X

## A new generation of storage for factories of all shapes and sizes

The market's most efficient near-production storage system just got more versatile. Thanks to an innovative inventory system, a new range of high-end MYTower models nearly doubles the capacity of previous component storage systems of the same height.

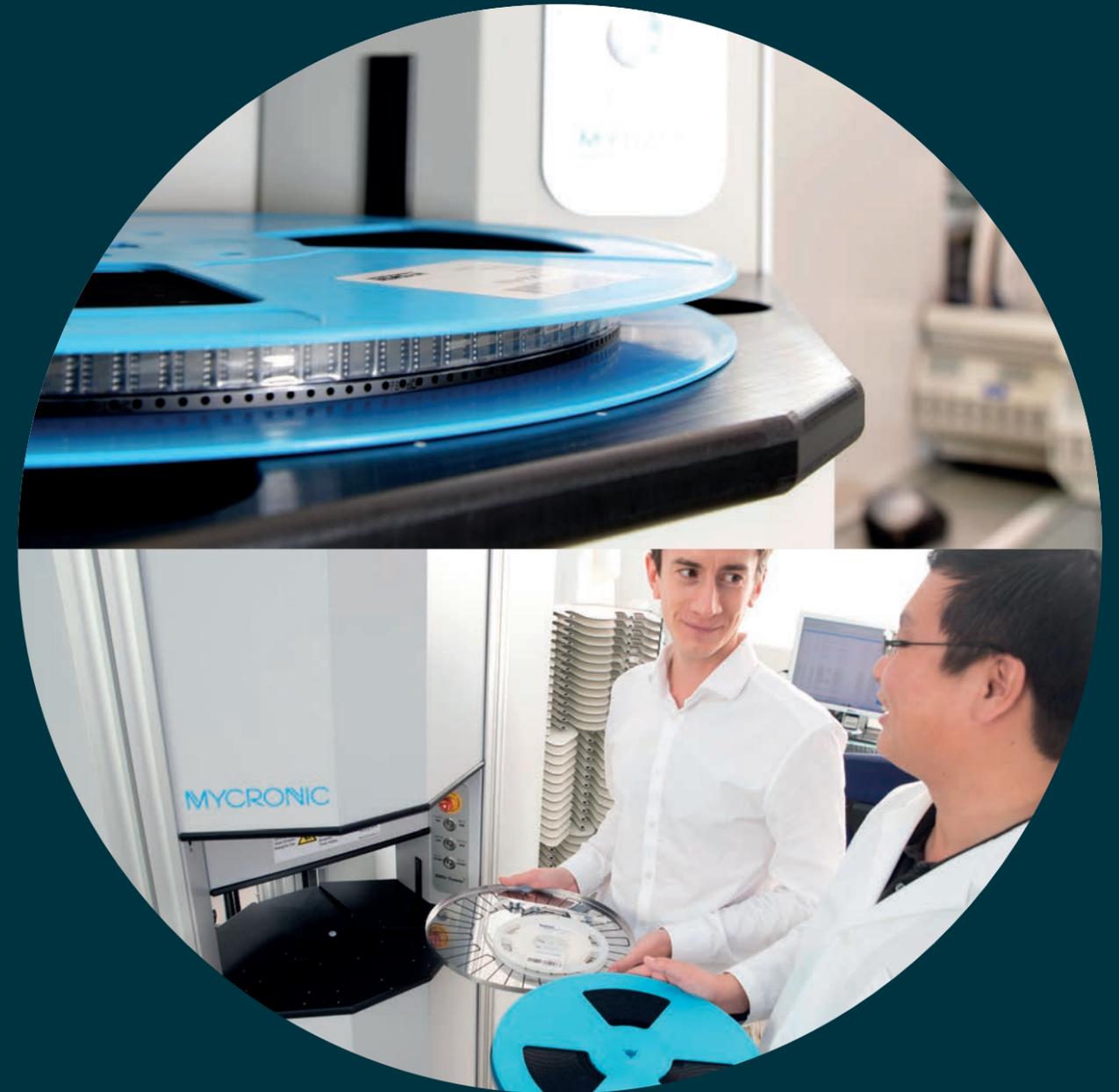
The new MYTower series X represent a massive leap forward in storage density. With capacity of up to 2,468 (4mm reels) or 1,988 (8mm reels). The newly designed platform packs in as many as 1,000 components per square meter to give manufacturers the most space efficient storage system available.

### WHENEVER SPACE IS TIGHT AND DEMANDS ARE HIGH

With many manufacturers struggling to keep up with a growing number of miniaturized components the MYTower series X comes at a perfect time.

The platform's footprint and reel carousel design are especially optimized for maximizing storage of 7" reels. This gives smaller EMS producers the opportunity to consolidate and automate their inventory within a smaller space, even as their product mix continues to expand. For mid-volume producers, it makes it possible to reduce the total number of storage systems, thereby freeing up floorspace to pursue the most optimal workflow strategies.

Together with the new dual-terminal option, available on any MYTower model, Mycronic's intelligent material handling systems are now more complete than ever before. Whether the future of your factory demands better accessibility, higher capacity, smarter movements or simply more floorspace, the new MYTower family has a member to meet every need.



The MYTower and material handling software is the first step towards automating your material flow. Enable complete control and traceability. Information right at your finger tips.

# Protect your material handling workflow.

## Safely store and retrieve any component.

**Stock accuracy, traceability, and timely delivery of parts are key aspects of a material handling system. Today, most factories still rely on manual handling of electronic components. Providing the correct component, where you need it, when you need it, ready for quick and simple set up in your SMT line greatly enhances production efficiencies.**

Retrieval times can be reduced even more when storage capacity is multiplied by combining several MYTower units that work in parallel. The MYTower can be equipped with an optional dry air unit to produce a controlled storage atmosphere with a relative humidity of less than 5 percent. This enables you to store humidity sensitive components (MSDs) as per IPC/JEDEC standard 033B. In addition, air temperature and humidity are recorded and provided as 'traceability data'. MSD utilization duration is also monitored to avoid production stoppages.

### CONVENIENT AND INCREDIBLY QUICK

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

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 automated size detector measures the height and the diameter of the reel, after which the database software immediately places the reel in its assigned location. Within seconds, the MYTower 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—MYTower enables fast and error-free storage of reeled components and trays in under just two square meters of floor space. The MYTower can be equipped to store reels between 4mm and 56mm thick—with a diameter of between 100mm (4") and 381mm (15") in any combination. If you choose, trays can be stored in place of reels, or in mixed storage configurations with reels. The choice is yours.



Fast and convenient handling of reels and trays.



### 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 MYTower makes such errors a thing of the past. After a few averted mix-ups, the investment may already have paid for itself.

The Mycronic MYTower 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 or web service interface.

While its primary application is as a buffer storage unit for SMD assembly, the MYTower 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 MYTower's quick return on investment.



# The Mycronic way of working

## Intuitive, powerful and versatile software

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

The software's client version works independently of the MYTower 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.

Job scheduling is a critical part of the software, managing 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, automatic minimum stock monitoring or MSD floor life notifications 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. Connect the MYTower with ERP/MES systems, and follow material throughout your production, from incoming material to finished products.

### 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 MYTower 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, MES/ERP systems, AGVs, component counters and labeling 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 MYTower system software are simply de-activated in order to offer extended functionality and seamless integration.

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.



### AUTOMATION CAPABILITIES

Mycronic believe in a smarter material flow through intelligent material handling. In highmix SMT assembly, the time in between jobs is significant and should be as short as possible. Having an automated material flow can greatly reduce the overall kitting time and thereby minimize changeover cost. Through the integration of a robotic arm and an AGV, electronics manufacturers can load and unload reels from the MYTower, and distribute them to their respective kitting areas without human intervention.

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

The data is managed with the remote order protocol.

# Bringing tomorrow's electronics to life

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MYCRONIC.COM

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