![Otto Künnecke logo] Otto Künnecke

# MAGIC TOWER



**Fully automatic storage and picking system for SMD reels**

**Configurable for variable reel sizes and thicknesses**

**Modularly expandable with a storage capacity of up to 100,000 reels**

**Variable system heights : 2.5 m, 3.3 m and 3.8 m**

**Integration into existing MES/ERP systems**

**Various function modules for maximum flexibility**

**Automatic multi storage input and retrieval points**

**Software-supported warehouse logistics**

## MSL-ROTATION MODULE

To meet all MSL requirements, a special insulation is installed in the rotating towers. Hence, the structural advantages of the rotation module are used to ensure that the moisture-sensitive components are properly re-dried and reliably stored.

## AUTO I/O

The auto I/O module can automatically store or retrieve up to 65 rolls with different diameters and thicknesses - in the required sequence. In combination with a storage or retrieval transport module, the reels are collected and retrieved or stored according to the order. This makes for a maximum input and output capacity on the smallest possible footprint. Above the input and output point, there are cassettes for receiving and storing SMD reels of different sizes and thicknesses.
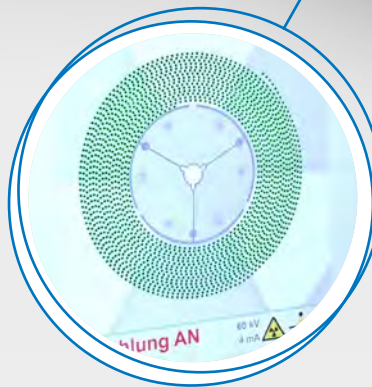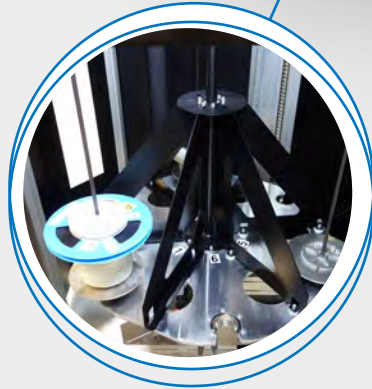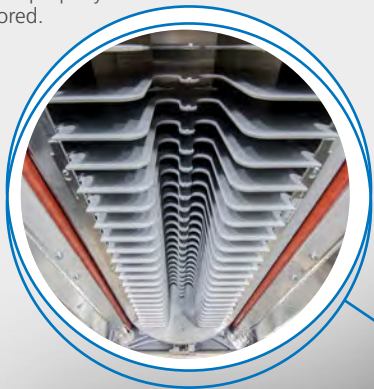
## ROTATION TOWER

This rotation module is a specially designed and highly efficient storage location for SMD reels of any thickness and diameter. Through its rotational characteristic and the efficient cassette layout, the highest possible storage capacity is achieved. The cassette types are configured according to requirements and can be exchanged at any time.

## REELHOLDER CAROUSEL

This buffer for up to 6 reel holders with up to 60 reels each can buffer up to 360 reels total and automatically transfer them to the auto I/O module for storage in the Magic Tower or retrieval for use in production. The transfer for storage or retrieval of the reel holders can either be done manually or via AGV.

AUTO - I/O
2

## SINGLE I/O

This single input and output point for individual SMD reels can store or retrieve individual reels on demand at any time. Cassettes for storing SMD reels are located above and below the input and output point.

Single
OUT

## TRANSFER MODULE X-RAY COUNTER

X-Ray counters from different manufacturers can be integrated into the Magic Tower as stand-alone or pass-through units. By integrating the X-Ray system, counts of the components on the SMD reels can be carried out during input or output processes and at any time for inventory purposes.

## Intelligent aides

The Magic Trolley is a pick-per-light shelf for SMD reels that can be attached to an automated guided vehicle (AGV).

Expandable width & depth

3 different structural heights

2,50 m    3,30 m    3,80 m

AGV

MAGIC TROLLEY

# The Magic Tower

**is a fully automated, scalable, and modular storage and picking system for SMD reels, which are stored and retrieved fully automatically under gapless track and trace and with various quality controls.**

The innovative system with a capacity of up to 100,000 reels ensures maximum product safety and optimizes your production. Manual interventions are minimized to reduce risks and save costs. The freely configurable system can be equipped with a wide variety of additional modules, such as MSL drying modules, connections to AGVs or X-ray equipment. Thanks to this unique and distinct flexibility, the Magic Tower can grow with your individual requirements and can also be expanded in terms of functional scope and size at any time if required - even across several floors.

The entirely database-supported storage system offers interfaces to a wide range of MES or ERP-systems and guarantees gapless track & trace for every single reel.
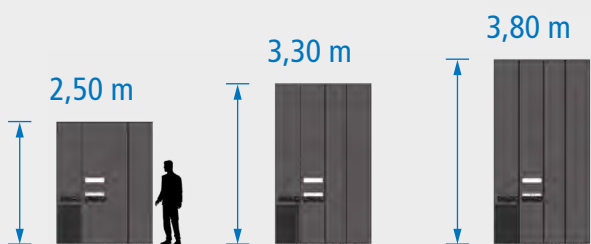
In conjunction with the Magic Cube, almost all products and components for SMT and THT production can be stored and retrieved automatically and order-related. Hence, combined with the use of AGVs, almost all picking and transport tasks can be completely automated.

## YOUR BENEFITS:

- ✓ *High storage capacity for up to 100,000 reels*
- ✓ *Modularly configurable system*
- ✓ *Inhouse-developed software with interfaces to various MES and ERP-systems*
- ✓ *Highly flexible and efficient workflow*

## Innovation originating from tradition and passion

Founded in 1934, the Otto Kuennecke group with a staff of circa 180 dedicated employees worldwide offers intelligent solutions for various fields of application in machine automation. As the world market leader for processing and order picking of highly secure documents and products, such as ID cards or passports, our progressive family-owned company has a global service network and, with an export share of over 80%, supplies renowned government institutions and corporations. With the acquisition of MMOT GmbH, we have combined our comprehensive know-how with in-depth market knowledge in electronic manufacturing and are continuously driving new technological developments with our innovative strength. In doing so, we always meet our customers at eye level and face every challenge with our proven ingenuity and our burning passion for what we do.

## Competence grown from expertise and know-how

With many years of experience in the development and production of machine systems and software solutions, our company offers innovative warehouse and logistics concepts for all Industry 4.0. requirements, which are already in use in installations worldwide. The focus of our intelligent warehouse automation concept is on our two storage and picking systems, Magic Tower and Magic Cube. In conjunction with various additional modules, these innovative systems represent a holistic warehousing concept from goods receipt, through storage and picking, to the withdrawal of all relevant components and production parts in the EMS sector. Our systems minimize manual intervention, avoid mispicking and untraceable products and thus offer real added value for future-oriented production and manufacturing environments.



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