

Storage machines



About Dexion

In 2018, Gonvarri Industries acquired the Constructor Group comprising of Dexion, Constructor and Kasten and Gonvarri Material Handling was formed to become the new group parent.

Dexion is a prominent member of Gonvarri Material Handling, a family of brands which can trace its origins back to 1856.

Dexion's Audacious Beginnings

The Dexion company (from the Ancient Greek meaning 'Right') was originally forged from Comino's hunger for efficiency gains across his printing business. Namely, the need for paper and type storage racks that could quickly and easily be dismantled and reused.

Comino's persistence and tenacity paid off. By 1947 he had developed the 'Dexion Slotted-Angle', a framing material that was, weight-for-weight, stronger than wood, and that could be stored in a fraction of the space needed for wooden timbers.

The first adjustable storage system had arrived, and blazed the trail for Dexion's purpose-built pallet racking and shelving systems.

Dexion quickly became the benchmark for innovation with a number of outstanding milestones:

- 1956** Slotted-Angle used to build Olympic Stadium
- 1957** 1st Mobile Pallet Racking installation
- 1963** 'Dexiongrad' built to support the Yugoslavia earthquake relief
- 1970** Production of Steel Shelving begins
- 1980** 1st Paternoster installed
- 1999** Dexion is acquired by Constructor Group and P90 system launched
- 2000** Hi280 system launched
- 2003** 1st Tornado automatic storage installed
- 2011** Cantilever range launched
- 2014** P90+ system launched

It is testament to those early pioneers that these systems are still much in demand today.



Introduction to storage machines

If you're a warehouse or storage operative, you'll know the importance of making every square meter count.

Our automatic storage systems can save you up to 70% on existing floor space, reduce picking errors by up to 70% and decrease picking time by more than 60%.

Computer-controlled, the vertical or horizontal storage machines easily integrate with your existing warehouse management system, but also operate effectively as a standalone solution.

Can you afford not to improve the efficiency of your storage and picking process with an automated solution built around you?



Tornado - automated vertical storage machine

Core features

- Up to 70% saving in floor space capacity
- Up to 65% boost in handling efficiency
- Fast and accurate picking with up to 99.9% stock-picking accuracy
- Low power consumption & maintenance costs
- Dedicated, easy-to-use Windows-based interface
- Equipped with adaptable trays for additional efficiency
- Light pointer to reduce errors
- Additional openings on different floor levels
- Easy and paperless order handling to optimise warehouse logistics
- Fast tray switching on the UHD model
- Two tray locations at the picking opening on the UHD model



The TORNADO Automated Vertical Storage Machine is a dynamic storage and retrieval system that boosts handling efficiency by up to 65%, and increases floor space capacity by up to 70%.

An ultra-fast, virtually noiseless, computer-controlled storage and transfer lift system, the TORNADO is designed to maximise storage on the smallest possible footprint. Using the goods-to-person principle it cuts operator walking and waiting times, reduces search time and picking errors making it highly-efficient and energy-saving.

The TORNADO UHD model uses a totally new way to determine independent safety zones inside the machine. The new roller guided compact load handling device, enables higher dynamic motion and tray switching at the opening without the need of an inner door.

Various ways to position your TORNADO



Through an existing roof or through the ceiling



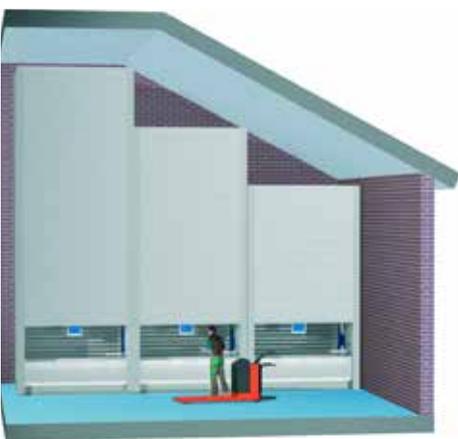
Integration into multi-storey buildings



Installation in the basement



Outside the building with connection to the inside



Installation under sloping roof or shed roof constructions



Installation under ventilation plant

Industrial Paternoster IPN (vertical carousel)

Core features

- Reduces warehouse walking and waiting times by up to 65%
- Up to 75% less floor space than conventional warehousing solutions
- Almost 100% order picking accuracy, no more searching for items
- Windows-based machine control
- Safety light curtains for added protection
- Safe and clean storage



The Industrial Paternoster (IPN) Vertical Carousel saves time and money by optimising picking processes and minimising picking errors. It requires up to 75% less floor space compared to conventional warehousing solutions.

The IPN uses vertical rotation to transport goods to the operator by the shortest possible route, making it ideal for simple manual operation, host-controlled order picking or highly efficient batch-picking.

It is particularly suited for fast order picking of small parts and can be easily customised, with its shelving, intermediate shelving and partitioning equipment adaptable to various height requirements.

Horizontal carousel (HOCA)

Core features

- Dramatically increases storage capacity through optimal use of available room depth
- Achieves maximum storage density – saving up to 70% on floor space
- Reduces walking and waiting times by up to 65%
- Guarantees cost-effective warehousing and efficient picking processes
- Speeds up order throughput times and minimises picking errors
- Delivers fast, efficient and accurate order performance



The Horizontal Carousel (HOCA) Automated Storage Machine is a computer-controlled storage and transfer solution that significantly improves the efficiency of product storage and picking.

The HOCA makes optimal use of existing room length when overhead space is limited or unavailable.

The HOCA is designed to keep things moving; multiple HOCA systems working to one picking station ensures permanent access to stored goods. While the operator picks from one carousel, the other machines bring the next requested order to the access point with pinpoint accuracy.

GMH Tower storage machines

Core features

- Reduces warehouse walking and waiting times by up to 65%
- Up to 75% less floor space than conventional warehousing solutions
- Almost 100% order picking accuracy, no more searching for items
- Windows-based machine control
- Safety light curtains for added protection
- Safe and clean storage



GMH Tower Storage Machines are designed for storing and handling of various types of heavy goods, especially material made of metal.

Tower Storage Machines are often used in the production for intermediate storage of material, near the cutting or bending machines, or as an inter-operative warehouse. The material stored is typically sheet metal or profile rods and tubes.

Batch picking

Core features

- One user can operate several machines at once
- Several orders are collected at a time
- Individual products are picked for several orders at once
- Paperless picking possibility
- Picking costs are reduced by up to 50%
- Picking errors are reduced up to 70%
- Ergonomic and efficient



Increase picking efficiency with Batch picking, it is the most efficient way to pick as many pick lines as possible per day while minimizing errors. The system brings the tray to the operator and provides information on the product and its location.

With our storage machine you can optimise efficiency picking, enabling the operator to combine numerous orders whilst guiding them through the process of allocating the correct item to the relevant order.

WMS / TCPlus

Core features

- Clear graphics that show all operations
- Goods reporting
- Repetition diagrams for different warehouse areas and shelves
- Transaction history (who, what, when)
- Monitoring of storage location types
- Possibility of printing various labels during picking and put away
- FIFO, Floating storage locations, Fixed storage locations with or without quantity management
- Control data of a warehouse directly from the host system
- Support for controlling separate production batches of a single item per storage location concerned
- Several different language options
- Miscellaneous control of user accounts and their user rights
- Item weight control



Warehouse management and accurate stock balance control has become more important in storage and logistics. In automated storage, the use of stock control systems and their ability to fit into the company's other operations and to a host system has taken a bigger role.

TCPlus is a Windows based WMS system that has been developed for use with storage machines but can be used as a standalone system or connected easily to existing ERP-system. It's a complete WMS system that can be used when there are both machines and static racking in the warehouse. The picking will be done with handheld PDA's.

Accessories and add-ons

We offer you an automated system and a selection of accessories and add-ons to create your own tailor-made storage machine to meet your individual requirements. With the ability to seamlessly link these machines to your ERP or WMS using our TCPlus software managing your picking has never been easier.

Increase your processes and productivity with accessories and add-ons for Storage Machines.

We offer storage machines with a wide range of accessories and add-ons to create your own tailor-made machine to meet your individual requirements.



**TORNADO, Paternoster & HOCA -
PC equipment**

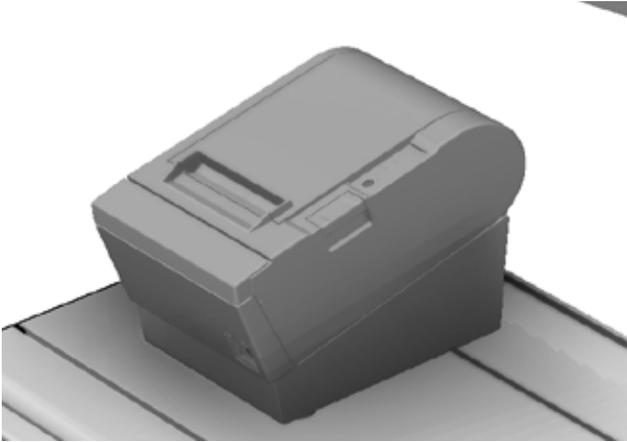
Holder for screen, keyboard and printer.



**TORNADO, Paternoster & HOCA -
Barcode reader**

Wireless barcode reader for faster picking.

Accessories and add-ons



**TORNADO, Paternoster & HOCA -
Label printer**

For easy and fast label printing.



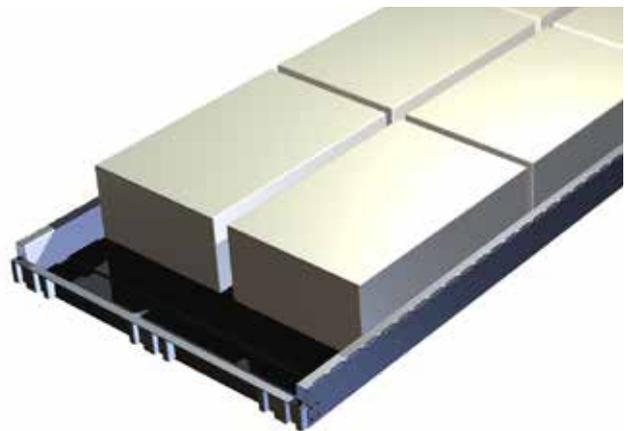
**TORNADO & Paternoster -
Light position indicator**

Shows the operator the location of the next picking,
improves picking speed and reduces errors.



**TORNADO & Paternoster -
Door**

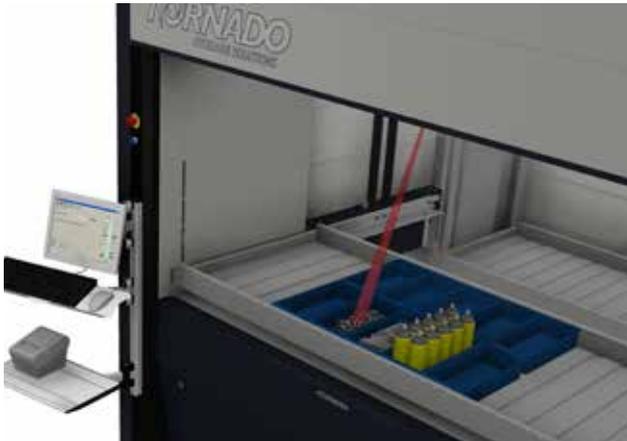
With an electrical door the machine is easily closed to
prevent unauthorized use.



**TORNADO & Paternoster -
Boxes**

The trays can be equipped with plastic or carton boxes
to create smaller compartments.

Accessories and add-ons



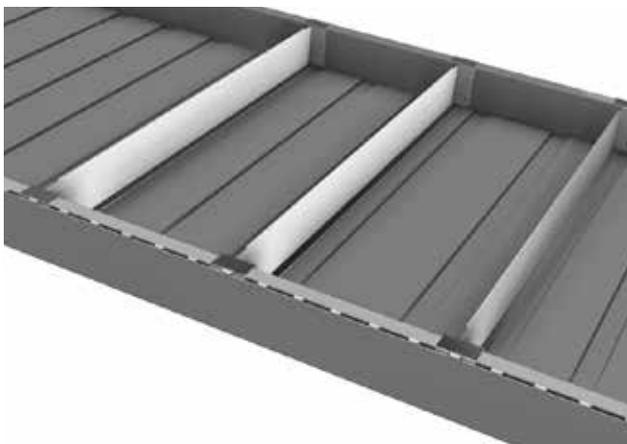
TORNADO - Light pointer

Light beam that indicates from which box to pick.
Improves picking speed and reduces errors.



TORNADO - In-out feeder

Automatically brings the tray outside the machine for
easier access to big/heavy goods.



TORNADO - Tray divider

Dividers are useful when there's a need to separate
items on a Tornado tray.



TORNADO - Weight control

The scale shows the tray load on the Tornado screen.

Accessories and add-ons



Paternoster - Divider

Dividers are useful when there is a need to separate items on a Paternoster carrier.



Paternoster - Sublevel

An extra shelf level on the carrier.



Paternoster - Confirmation strip

A strip placed under the table for faster picking confirmation.



Paternoster - Wooden table

Instead of the standard metal table a wooden table can be installed.

Accessories and add-ons



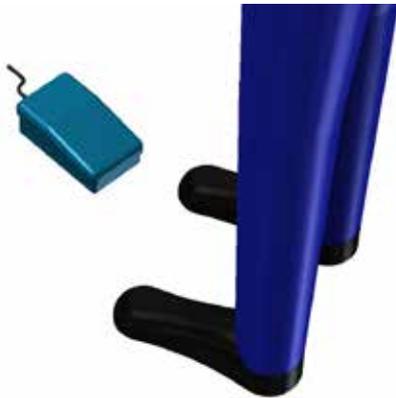
HOCA - Vertical light position indicator

Shows the operator the location of the next pick, improves picking speed and reduces errors. Installed vertically.



HOCA - Sheet metal bay

A HOCA machine can be installed with sheet metal bays instead of a standard wire mesh bay.



HOCA - Foot switch

Foot switch for easier picking confirmation.

Service and maintenance

Guaranteeing ongoing safe operations means accepting your legal responsibility to ensure your storage products are regularly inspected and maintained. Our experienced teams are here to help.

Our expert teams of skilled service & maintenance inspectors can be by your side; carrying out any remedial work required and providing ongoing servicing and support of all our products within your facility.

You want to make sure your business is always operating at its safest and most efficient. We provide this assurance by:

- Offering a maintenance or service contract to your specific requirements
- Carrying out maintenance in line with your service plan
- Using certified service technicians
- Conducting systematic follow-ups of inspections and repairs
- Upgrading existing facilities with repairs or new technology
- Monitoring and following-up existing legislation, regulations & norms
- Training your staff in the use of our equipment



Consulting services

When finding the right storage solution, it's always reassuring to have an expert by your side. Our experienced and knowledgeable sales and design team give you a world-class blend of valuable insight, guidance and practical assistance.

Looking for a much more in-depth review of your warehouse or storage facility? Dexion provides analysis, advice and ongoing support to give you just that.

Analysis & Advice

We don't just offer general advice and guidance about your storage requirements; we go further to provide you with practical assistance and advice with a more detailed analysis of your storage requirements.

Our own in-house Analysis & Simulation Tools will translate your storage needs into a specification report, evaluating all areas of your warehouse, including:

- The layout & storage equipment you require
- Your material storage locations
- The optimal material handling processes & picking speeds
- Inventory levels to achieve your required service levels
- Purchasing & replenishment strategies





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