

A Member of the Constructor Group



# STORAGE MACHINES

Increase efficiency and organisation in your warehouse



# Increase productivity with Dexion automated storage



**DEXION** offers computer-controlled storage and transfer systems which fit perfectly with almost all types of storage requirements. With automated storage you can significantly improve the efficiency of the picking process by over 60% with a saving of more than 70% of floor space.

**DEXION** storage systems are tailored and customised for the site's specific operating environment. The storage systems can be equipped with shelves, boxes or pallets which are adapted to the products, which improves the efficiency of the process even more.

**DEXION** storage systems are easily connected to your company's operation control system. Accessories and controls can be selected specific to your needs.

As the leading manufacturer of storage equipment and engineers of automated storage solutions our aim is to energise and optimise your warehouse logistics. We are committed to developing more efficient solutions for your warehouse.

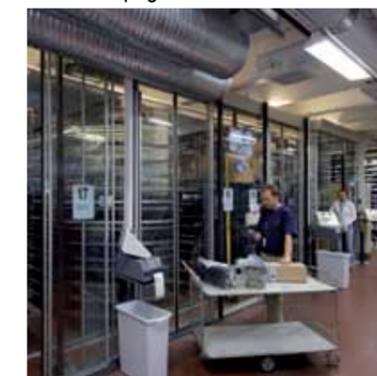
Tornado Vertical Lift Storage Machines pages 4-7.



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# Dexion Tornado machines maximise capacity



Dexion's Tornado machine facilitates modern picking techniques when storing various sizes of products. Thanks to its ingenious lifting device the Tornado is a swift, energy saving and noiseless automated storage system utilising the lift principle for storage. Each machine is tailored to your individual products' storage requirements.

First a product code is entered, either manually, with a bar-code reader or from a host system. The system then retrieves the required tray and brings it to the operator, producing it at the optimal height for picking. The entire tray can even be taken out and transported to another work station.

Due to the system's intelligent control the machine endeavours to locate the most active trays as close to the retrieval point as possible. This makes the Tornado system especially useful for seasonal products.

Tornado offers safe and secure storage for valuable or sensitive items. A password-protected access level can be set for additional security. Passwords can be set for individual trays as well.

Tornado offers reduced replenishment and picking times. With Tornado's wide tray the quantity of items that can be picked is maximised and overall tray movements are minimised. The design of the system enables a variety of machine widths to be created without a reduction in the payload capacity of a tray. Tornado's simple structure makes the system reliable and low-maintenance.

### TORNADO CAN DOUBLE EFFICIENCY

Dexion Tornado's storage capacity can be doubled by integrating two standard TORNADOS into one device housing (DT). Just like a standard Tornado, a batch picking system can be connected to a Tornado DT, for example it can be equipped with a pick position laser pointer and a left to right light pick position strip. With the help of these accessories the location of items to pick is quickly identified on the tray. This speeds up picking times and minimises picking errors.

Scan this code with a smartphone QR reader to see a video on TORNADOS



# Benefits of a Dexion Tornado



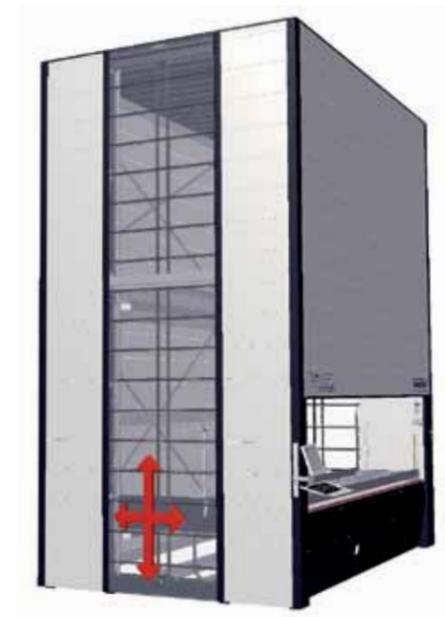
- Fit more goods into the same space. Saves up to 70% floor space
- Efficient picking. Up to 65% reduction in picking times
- Suitable for handling small, large or heavy items
- Additional openings enable the use of Tornado on different floor levels
- Ergonomic operation as the system brings the trays to optimum height
- Prevention of unauthorised use. Reduction of losses
- Reduced picking errors
- Items remain clean and in order
- Easy and paperless order handling
- The Windows-based PC control system allows easy integration with most types of other WMS
- The latest technology on the market
- Customisation to customer requirements
- Rapid and efficient support, guidance and service with Dexion remote support via internet
- Dexion Tornado DT – the capacity of two machines with one pick opening
- Enables the efficient use of storage space

## DEXION TORNADO – TECHNICAL INFORMATION

- Tray width (inside measure) 1250–4250 mm
- Tray depth (inside measure) 520, 620, 720, 820 and 1220 mm (special dimensions by request)
- Load capacity 300kg to 600 kg per tray
- Loading height 850 mm
- Total capacity 40 tonnes
- Machine height max. 15 m
- Electricity 400 VAC, 16 A
- Control system – TC1100
- Connection with ERP, WMS, robot

## ACCESSORIES

- Light position indicator
- Light pointer
- Confirmation strip
- Bar-code reader and label printer
- Batch picking and much more



*Tornado's depth, width and height are easily customised to accommodate different sized products.*

# Dexion Paternoster machines – save time and space



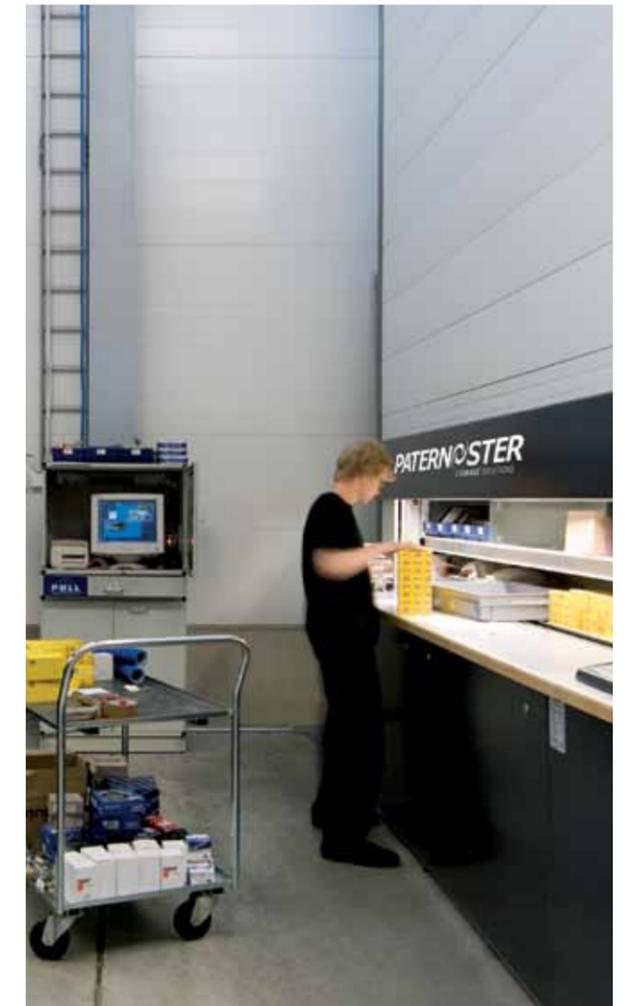
The Dexion Paternoster is a secure and safe storage system where items do not have to be searched for. It is also an excellent solution for the optimal reduction of picking times.

A large reduction in picking times is achieved with batch picking, offering a quicker stock turnover. Stock item handling is safe and ergonomic, as the shelf is brought to an optimal working level.

The Paternoster saves floor space and offers efficient height-optimised storage. Retrieval points can be located on different floor levels.

The rotating automated storage solution Paternoster keeps the products away from dust and light.

The Paternoster is especially suitable for storing a variety of different sized goods. It offers rapid processing and reduced picking errors, always bringing items to the operator by the shortest route.



# Benefits of a Dexion Paternoster

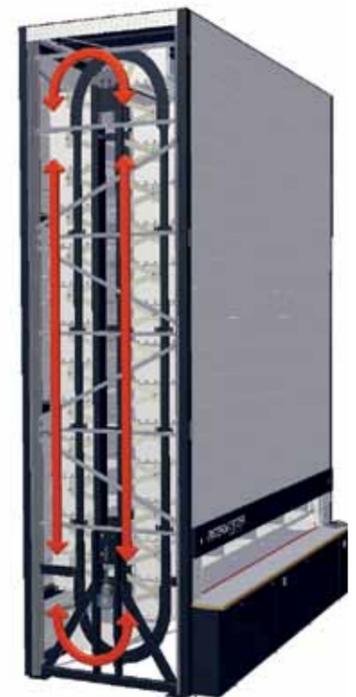


- Store more goods in the same space
- Carrier dimensions are suitable for most standard picking containers
- Average picking time 15 sec / row
- Reduces picking errors by two thirds
- Prevents unauthorised use. Reduces loss
- Safe and ergonomic work environment
- The controller is equipped with graphical touch screen
- Well-lit access opening that can be closed and secured by electronic door. Optionally multiple-access openings can be in different locations, even on different floors
- Guarantees the safety of both users and goods with a safety light curtain and photoelectric cells above and below the opening
- Particularly suits batch picking
- Combines reliable technology with decades of experience in global deliveries
- Low maintenance requirements
- Easy to integrate with many other WMS solutions
- Durable and solid frame



## DEXION PATERNOSTER – TECHNICAL INFORMATION

- Carrier width 2850 and 4100 mm
- Carrier depth 420, 520 and 620 mm
- Carrier load capacity up to 600 kg / carrier
- Carrier free height 201–493 mm
- Total capacity up to 16 tonnes
- Machine width 3703 and 4953 mm
- Machine depth 1836, 2036 and 2236 mm
- Machine height 3040 – 14890 mm
- Electricity 400 VAC, 16 A
- Control system PaC100
- Connection with ERP, WMS, robot, RJ45-connection



*Dexion Paternoster brings goods to the operator by using the shortest route.*

# Dexion's HOCA can accommodate large quantities of goods



Dexion's Horizontal Carousel (HOCA) is an excellent solution for large warehouses or low roofed buildings. Horizontal storage systems can convert a whole warehouse into an efficient picking operation, an optimised HOCA will assist the picking of goods from the correct locations and bring them to a defined picking point.

The idea of Dexion's HOCA-concept is to place horizontally moving shelves into the smallest area possible, while at the same time utilising the available space. The horizontal storage system can accommodate large quantities of bulky goods and reduce picking times significantly.

HOCA brings goods to the operator rapidly and ergonomically. Modern technology allows picking from several different locations and by combining several machines for one user, productivity can be significantly improved. Compared to traditional methods, the HOCA system can reduce picking errors by two thirds.

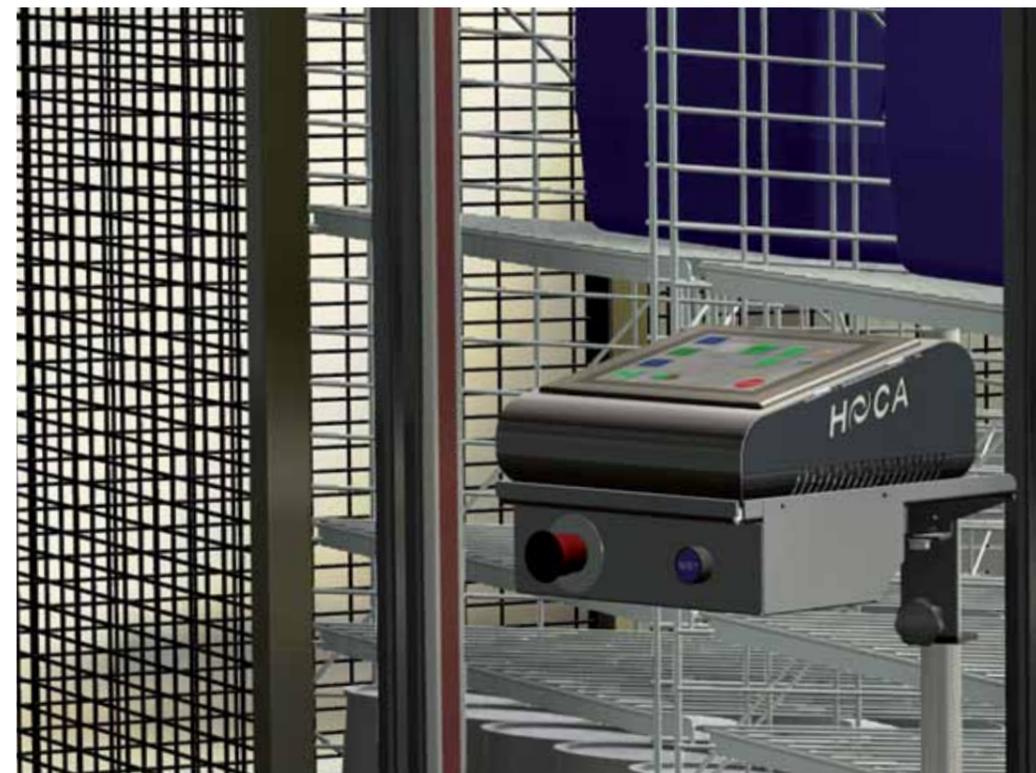
HOCA is easily connected to the production, logistics and sales databases, as well as the other Dexion storage machines. The dedicated control system of the storage machine always chooses the quickest route for goods to be brought to the operator.



# Benefits of Horizontal Carousels

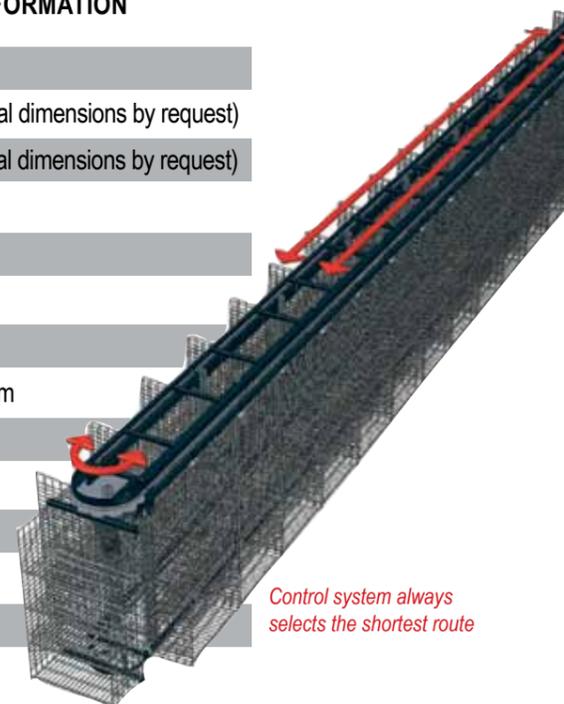


- Optimal use of floor space and low building height
- Enables, by its flexible dimensions, the storage of different goods into one system
- Efficient batch picking
- One operator can pick from several machines
- A safe way to store and handle material
- Easily integrated to the whole logistics environment of the warehouse and into the company's WMS
- Rapid and easy way of picking goods. Very short picking times
- User-friendly and safe
- A simple re-stocking system
- Controller equipped with a graphical touch screen
- Option of several pick openings
- Many options for bay shelf configuration
- Two horizontal carousels can be installed one above the other



## DEXION HOCA – TECHNICAL INFORMATION

- Bay width 830–1010 mm
- Bay depth 508 and 608 mm (special dimensions by request)
- Bay height 1700–3900 mm (special dimensions by request)
- Bay load capacity 600 kg
- Shelf capacity 100 kg
- Shelf pitch 60 and 120 mm
- Machine load capacity 40 tonnes
- Machine width 1700 and 1900 mm
- Machine length even up to 50 m
- Machine height 2150–4350 mm
- Electricity 400 VAC, 16 A
- Control system HoC100
- Connection to WMS, ERP, robot



*Control system always selects the shortest route*

# Dexion's Warehouse Management System



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

Easily used warehouse management systems, developed and maintained by Dexion, guarantee the efficient and functional storing solution. The systems can advance from a small user-friendly system of controlling one automated system into a multi-user version and an efficient batch picking process.

types of storage requirements. TC2000 created for the Microsoft Windows environment offers a simple, user-friendly and flexible operating program. The user can choose the most suitable language from the system.

TC2000 is easily connected to the customer's own operating management system. If required, TC2000 can be tailored to meet the specific requirements of a customer.

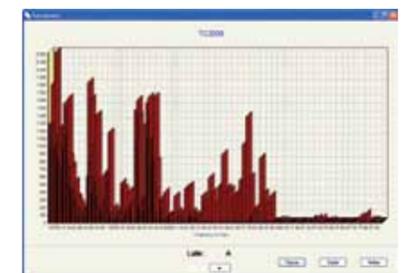
The Dexion TC2000 warehouse management system is designed for use with all the Dexion automatic storage equipment, with flexible controls for all

## THE BENEFITS OF THE DEXION WAREHOUSE MANAGEMENT SYSTEM

- One system that operates all Dexion storage systems
- Adjustable controls for all types of storage functions
- Batch picking utilises all characteristics of the automated storage system
- The modular structure allows additional features to be easily implemented
- Multi-lingual operating system
- Visual and clear graphics
- Support for label printing and bar-code readers
- Common database for several storage systems
- Varied back-up functions
- Flexible integration into several production control systems

The software is available in three different levels of sophistication:

- TC2000 Std
- TC2000 Pro
- TC2000 Pro Ext



# More efficiency with batch picking



Batch picking is the most efficient way to pick as many pick lines as possible per day while minimising errors.

Batch picking combines the products from multiple orders into one picking batch. The control system guides and optimises the picking order while the system brings the tray to the operator, providing information on the product and its location.

The control system also displays the quantity to be picked and the related order. Dozens of orders can be picked in the same batch.

This allows optimal picking during one picking batch. In other words, the shelves move and the operator stays in one position. While the picker places

products into picking compartments the system places the next product at the picking face, ready for picking. This reduces waiting times and increases efficiency.

Traditional systems do the reverse: they collect each order separately, traversing the picking route again for each one.



## THE BENEFITS OF BATCH PICKING

- One user can operate several machines at once
- Multiple orders are collated at the same 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 by up to 70%
- Ergonomic and efficient working environment





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