

# Shelving systems







# About Dexion

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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 shelving

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From a single shelving bay, to a vast installation, Dexion's wealth of expertise and resources ensure your shelving not only meets your requirements right here, right now, but can accommodate your ongoing and changing needs in the future.

In fact, whether your facility operates to a multi-tier or mobile set-up, our wide selection of shelving systems are perfect for small-parts storage, organisation and identification in warehouses and picking areas.

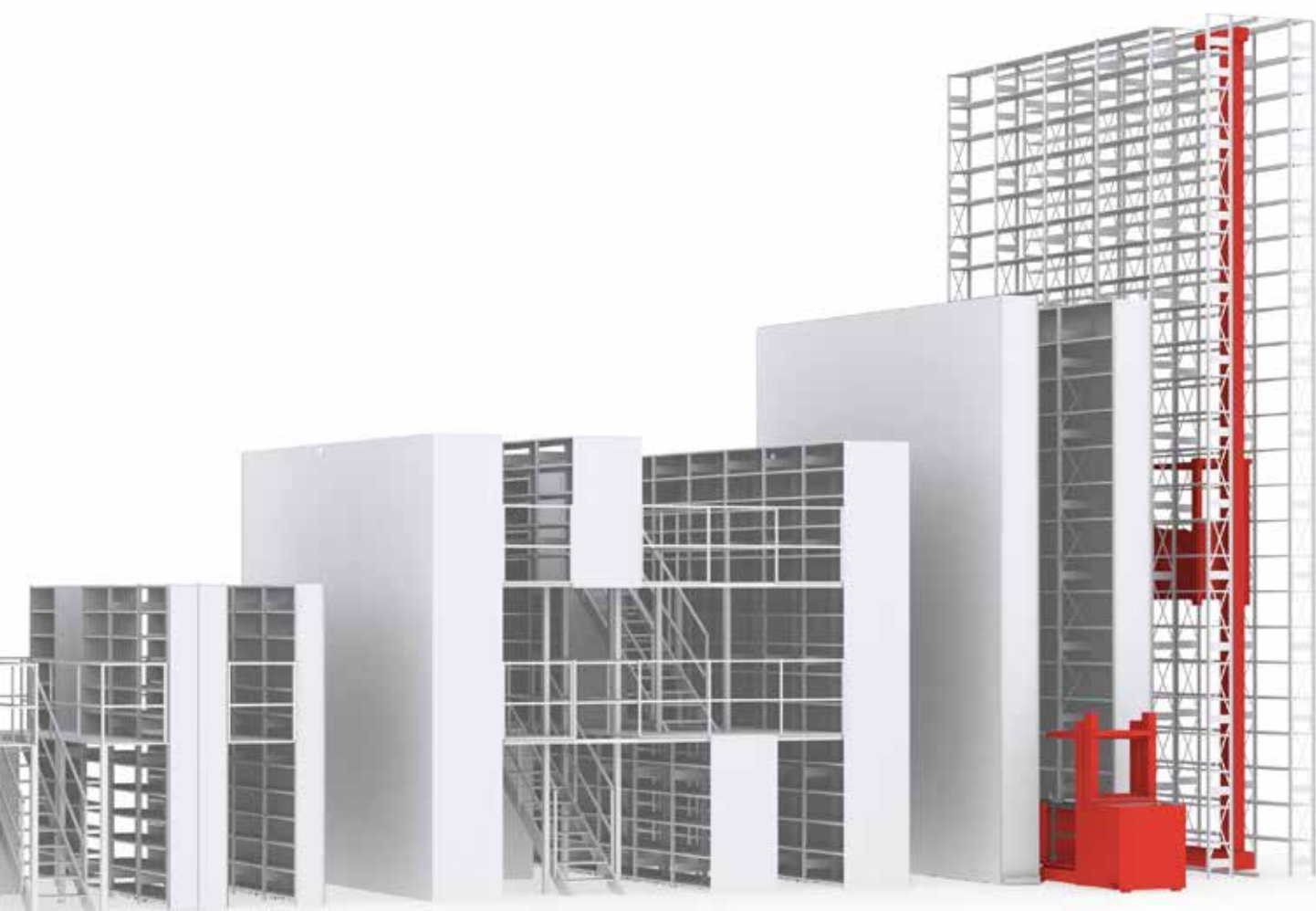
Dexion offers something for everyone, making for a world-class blend of performance, security and economy, all while complying with safe working practices and local requirements and regulations.



**Standard shelving**

**Mobile**





**Two tier**

**Multi tier**

**Narrow  
aisle**

**High rise  
and Mini  
load**

# Standard shelving system

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## Core features

- Frame components and shelves manufactured in pre-galvanized steel
- Based on the principle of a minimum number of components – for fast assembly and rebuild
- Tested, dimensioned and approved in line with European FEM norms
- Extensive range of accessories



The Hi280 Standard Shelving system's applications are vast. You can build it as a traditional shelving system; a high-rise installation, or a multi-tier system. Whether you're operating standalone or manually-served picking, or a large, fully-automated central store.

Hi280 Standard Shelving is a flexible and versatile storage system for small-parts handling. Eliminating the need for cross-bracing maximises storage for its depth. While pre-galvanized steel results in a high, consistent quality, with a focus on using a minimum number of components as possible.

# Narrow aisle shelving

## Core features

- Frame components and shelves manufactured in pre-galvanized steel
- Based on the principle of a minimum number of components – for fast assembly and rebuild
- Tested, dimensioned and approved in line with European FEM norms



The Hi280 Narrow Aisle Shelving system is well-suited for your 24hr operation. Compared to forklift handling, this is your narrow-aisle solution that works with automated cranes to optimise storage space and picking efficiency.

A shelving system in a narrow aisle installation demands accuracy and high stability. The Hi280 Narrow Aisle Shelving System delivers on all fronts. In fact, with easy access for man-up trucks, or handling by automatic cranes, a narrow aisle storage installation offers a unique optimisation of storage space.

Eliminating the need for cross-bracing also maximises storage for its depth.

It's a solution manufactured from pre-galvanized steel, resulting in a high, consistent quality and with a focus on using a minimum number of components as possible.



# Medium span shelving

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## Core features

- Easy assembly and disassembly
- Fully galvanized and durable
- Customisable shelving profiles for extra strength and stability for shelf supports
- No loose parts
- Shelf supports with recessed labels and barcodes
- Extensive range of accessories



Hi280 Medium Span shelving or 'Longspan shelving' is perfect if you're storing larger or heavier products across multiple pick-locations.

The Hi280 Medium Span Shelving is assembled in the same way as the Standard Hi280 Shelving and suitable for both static and mobile requirements. It's particularly well-suited for the storage of automotive components.

Standard Hi280 Shelving is compatible with the Hi280 Medium Span. The two shelving systems can be easily combined and configured. Eliminating the need for cross-bracing maximises storage for its depth.

It's a solution manufactured from pre-galvanized steel, resulting in a high, consistent quality and with a focus on using a minimum number of components as possible.



# Mobile shelving system

## Core features

- High quality – manufactured from pre-galvanized steel, with mobiles made of epoxy coated steel
- Mobile-base wheels run on rails – floor-inlaid, or mounted directly on top of an existing surface
- High loads up to 15 tons – yet easily moved for additional mobility
- Extensive range of versatile accessories
- Electronic options available such as 'touch control' for easy access
- Compact shelving systems create secure and efficient storage – mobile units lock together to allow single-person access



The Hi280 Mobile Shelving System is the ultimate in compact storage. Combined with mobile bases, it's a mobile shelving solution ideal for small parts storage and handling.

The Hi280 Mobile Shelving System comes mounted on mobile units running along rails; matching the depth and width of standard Hi280 shelving sizes.

As a result of only needing one aisle for access, installations in a warehouse can double the capacity of storage.

# Multi-tier shelving

## Core features

- Substantial saving on construction costs due to efficient design
- Based on well-known shelving system Hi280
- Heavy-duty uprights to carry loads from the floors above
- High sustaining-capacity of individual components for optimal storage
- Fire sprinkler and lighting systems easily incorporated
- Stairs, handrails and pallet gate accessories complement the system



With integrated mezzanine, the Hi280 Multi-tier Shelving system is shelving constructed as two or more levels. Perfect if you have a larger warehouse storing multiple items.

Providing greater storage capacity than standard shelving, the Multi-tier Hi280 allows for a structural mezzanine floor – built from Hi280 pre-galvanized uprights – above the base, with further shelves on top.

The uprights can be full length – supporting all levels of shelves and the access walkways. Or single – supporting the lower shelves and a mezzanine with free-standing shelving units above. Thinner floors also allow for an additional level of storage to be included.



# Mini load shelving

## Core features

- Large picking zone with minimum floor area needed
- Ergonomic – Goods to man
- Increased picks per hour per operator
- Reduce picking error
- Multiple mini load modules can be connected to one picking station



The mini load system is a dynamic, ergonomic automated solution for the retrieval of small parts. Its high density, high accuracy, high throughput will increase the output of your operators.

Stacker cranes are integrated with your warehouse management system, they pick up the tote boxes or trays and deliver them to the picking zone either directly or by conveyor.

The system is available in heights up to 15m and the cranes can manage loads up to 50kg for light loads (tote boxes) and 200kg for trays.



# Tyre storage

Storing your tyres in the most efficient way possible is about maximising your use of space without affecting the quality of the tyres.

## Vertical tyre storage

Tyres stored vertically provide you with higher storage density and free up your floor space.

Have a smaller warehouse with manual handling? Hi280 Shelving is ideal. With spans of up to 2 metres, the tyre racks can be very effective in small spaces.



## Mobile tyre storage

Mobile tyre racks significantly increase your storage space, and are ideal when floor space is limited or rates per m<sup>2</sup> are high.



### Core features

- Uprights and shelves made from high-grade, pre-galvanized steel
- Mobile tyre storage provides compact storage
- Hi280 mobile tyre storage is mountable on top of your existing floor

# Ship shelves and cabinets

Keeping things shipshape when you're on the high seas can be a problem, which is why we developed ship shelving. Based on the popular Hi280 system, it's a special solution for teams working in marine industry applications.

The shelving system Hi280 for marine use has been developed as a safe and secure storage system in marine environments. This has resulted in further design and development of an extensive accessories range to prevent stored items from moving around during rough conditions.

The shelving system Hi280 has been reinforced and equipped with special, front-secure-beams fixed in front of the shelves, as well as a special locked chest of drawers for smaller components.

The shelving system is mounted into fixtures of the ship for optimal stability and security. Clients include NATO war ships, ferries, container ships, tankers, oil platforms and ship yards.



## Core features

- The uprights are fixed top and bottom to prevent movement
- Specialised baseplate for fixing to the deck
- Lockable systems that prevent the goods from moving / falling out in turbulent seas
- Fast installation
- Safety and strength approved by NATO and Lloyd



# Carton flow

The Carton Flow Picking Unit system is a fast and flexible solution for you to transport components to assembly stations without interruption. You can also easily adjust the shelves and wheels to ensure efficient movement of various sized packages.

The Carton Flow Picking Unit system is flexible enough to allow for changing and evolving warehouse layouts, thanks to the fact that it can be built as a stationary unit, or supplied with lockable wheels.

Alternatively it could also be integrated into pallet racking on any lower levels, below bulk storage, for example.



## Core features

- Adjustable, ergonomic racks – for ultimate handler efficiency
- Separate loading and unloading – picking can be carried out uninterrupted on either side
- High packing-density for carton storage – meaning more floor space
- Simple, fast installation
- Straightforward, modular system



# Accessories

Keeping up with the cut and thrust of warehouse operations. Using your space as efficiently as possible. Staying one step ahead of the latest regulations. It's all part of the job, yet without doubt presents a continual set of challenges on a daily basis.

Dexion continually works to make meeting those challenges as hassle-free as possible.

Our shelving solutions are designed specifically to fit the exact layout of your warehouse or storage facility, and work around your teams of operatives. What's more, a range of optional accessories and add-ons allows for additional adaptation for stored goods or for unique physical spaces.



# Accessories



## Sloping shelves

Sloping shelves will improve visibility of the stored goods and ease the picking process.

The sloped shelves are supported by two shelf beams and the slope angle is approximately 20°.

Installing a bin front will prevent items from sliding off the sloping shelves.



## Bin front

The bin front can be fitted to the front or the back of a shelf to prevent items falling from the shelf. They can be stacked on top of each other.



## Chipboard shelves

Chipboard shelf for medium span beams with cross beam supports underneath.

Chipboard shelves are positioned between the Medium Span beams, in front to back direction they are supported by the cross beams.



## Steel in-fill shelves

For medium span beams, the In-fill panel is used front to back creating a strong steel storage level.

A number of infill shelves, placed side by side, make up a storage level. The shelves are supported by hooks along the rear side of the beam.

The shelves are provided with holes to accommodate various accessories.

# Accessories



## Perforated shelves

By allowing water to pass through the permeable mesh, the perforations improve the fire safety of the Hi280 system.



## Base plinth

Fitting at the front, below first shelf, a plinth prevents items from entering the space beneath.

A base plinth is fitted between the front uprights to fill the gap between the floor and the lower side of the first shelf.



## Drip tray

It is usually installed underneath the Barrel Support, in order to prevent floor spilling.

The Drip tray is covering the free entry between the shelving uprights, but if you need to cover the full footprint of the bay additional Drip tray funnels should be used.



## Barrel support

Small barrels are often placed on barrel supports in a Hi280 Mediumspan or short span bay to allow tapping.

In order to avoid spills on the floor, a Drip tray is recommended to cover the free entry between the shelving uprights.

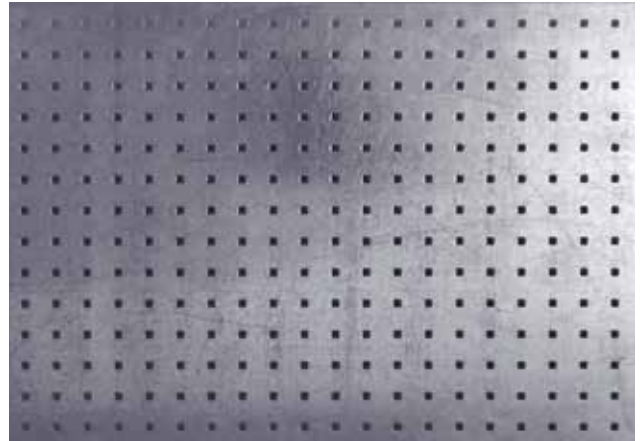


# Accessories



## Full width solid back cladding

The cladding is positioned between the back uprights within a bay to enclose the storage compartment. In double entry racks the cladding is common, being shared between both bays.



## Slotted back panel

Shelving bays can be equipped with slotted panels for the storage of tools, equipment or other small to average sized products.

The back panels must always be combined with side panels because the side panels lock the back panel in position.



## Slotted side panel

The shelving bay can be equipped with slotted panels for the storage of tools, equipment or other small to average sized products.

The side panels must always be used in association with a back panel.



## Plastic trays and bins

Ideal for storing smaller items, available in a number of sizes.

We offer a wide range of plastic trays and bins, from the very small parts bin, all the way up to the large Euro Containers.

With such a wide range of unit sizes it is possible to achieve numerous different combinations of tray or bins along the length of a shelf.

# Accessories



## Shelf divider full height

Used to sub-divide the shelf into smaller compartments. The divider is secured by four pins that fit into the oval holes along the top and bottom of the shelf and shelf beam.

Note: This accessory can only be used with short span shelving.



## Shelf divider part height

Used to sub-divide the shelf into smaller compartments. The use of the divider is independent of the shelf pitch as it only requires to be secured to the shelf below.

Note: This accessory can only be used with short span shelving.



## Loop dividers

The loop divider is used for the storage of bulky parts such as hoods, doors and so on, standing in an upright position.

They can be easily installed on the standard steel shelves using the long holes that form part of the shelves construction.



## Bay divider

Used to separate goods stored in vertical position.

The divider is placed across the Short or Medium Span beam and it allows fast and direct access.

# Accessories



## Pull out tray and drawers

A Pull-out Drawer is a drawer with raised edges to store small parts. Each drawer can be sub-divided with front-to-back dividers. A handle is fixed to the front edge of the tray.

Pull-out trays are for storing flat items e.g. drawings.



## Drawer nest

Is a build-up nest with 8 or 12 drawers that can be easily inserted inside a shelf compartment. The drawers can be sub-divided front to back.



## Lockable doors

Full and part height lockable doors with double locking points, to top and bottom.

Rotation of the handle by 90° either extends or retracts the locking rods.



## Tube rail

This part can be used as clothes rail, or in pairs to support tyres etc. Items can be hung from the rail by using hooks.



# Accessories

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## Sign holder

A sign that can be put up at the ends of rows of shelving to assist identification and orientation of the installation.

A label can be inserted on either side of the holder.

The signs clip into the hooks on the web of the upright.



## Tyre support angle

Allows the tyre to rest on a larger surface to avoid point loads and flat spots. It is used to store tyres and / or tyre and rim combinations.

# Consulting services

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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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