

# Racking for picking with order pickers





Picking operations performed using order preparation machines or order pickers help operators to do all the jobs involved in their work, enabling them to gain access to the levels and to transport the goods.

These machines work in narrow aisles and need to be guided from underneath.

The cabin with the operator rises at the same time as the forks, and stops at the optimal working height.





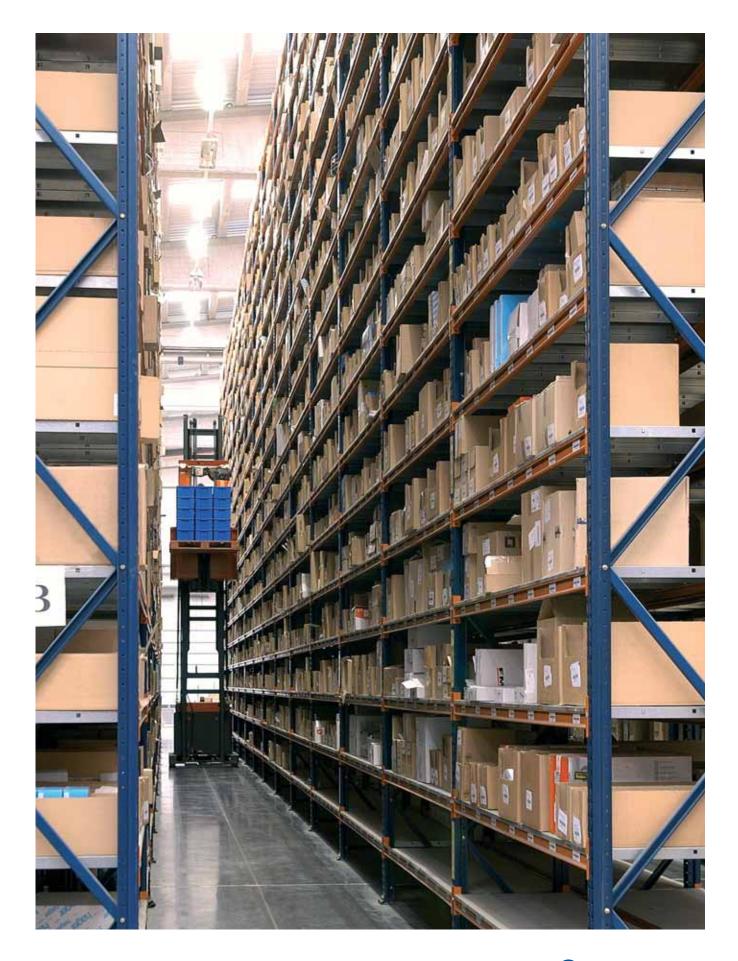
## **Benefits**

The most important benefits gained from using this order preparation or picking system are:

- Maximum use of warehouse height.
- Easy and quick access to any article.
- The same machine transports the load and the operator.
- Minimum effort to access the stored product, as the operator is positioned at the correct height.
- Great load capacity of the machines, which aids preparation by waves or by order grouping.
- The same machine can deposit the goods in the consolidation areas.
- Replenishment is done using the same machine.









This is an ideal system for the storage and classification of products with a medium or low turnover.

The areas of application are highly varied and the goods handled may range from small accessories to boxes of a medium size and weight.

Basic models of racking are used with the appropriate sizes and levels of resistance.

The different types of shelves and uprights, along with the wide range of accessories available (drawers, separations, meshes, etc.), enable the racks to be adapted to the needs of each case.

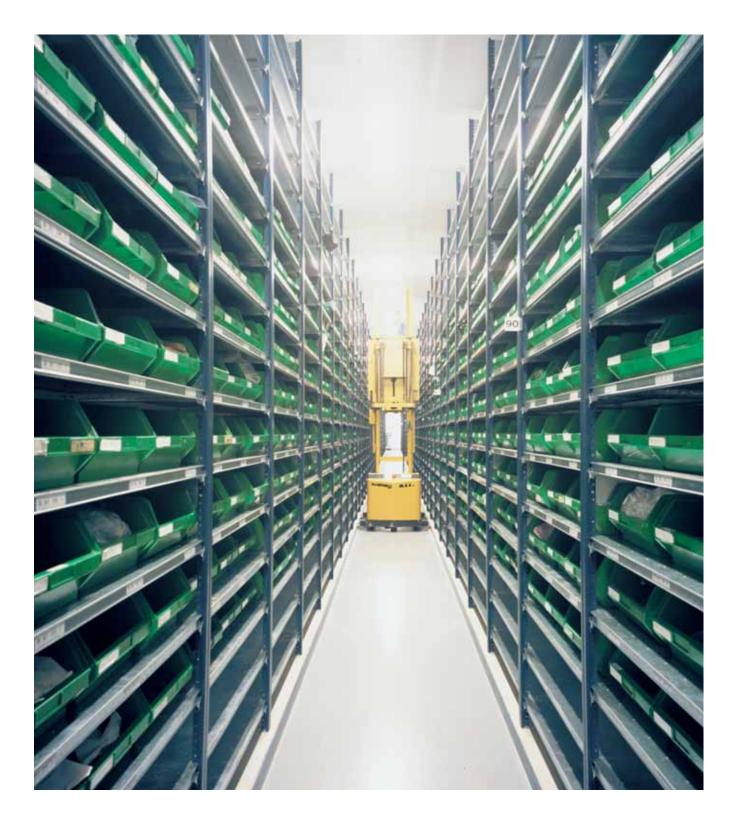




## Types of Order Pickers

There are two classes of machines: those which enable work to be carried out only in the lowest levels (low-height picker); and those which can lift the operator up to the highest levels of the racking (high-bay picker).

The machines need to be guided along the inside of the aisle. Only low-height pickers, when used in wide aisles, do not require guidance.



#### Low-height order picker

Low-height machines are generally used in facilities where picking is carried out in the two or three levels closest to the warehouse floor, with the stock reserve stored in the highest levels.



### High-bay picker

High-bay machines permit access to all the levels of the rack. They are fitted with cabins for the operator. Goods are moved either with front forks to transport pallets or platforms on which the goods are deposited. The operator moves up at the same time as the cabin/forks, travelling diagonally across the front of the racking.



#### VNA-combi truck

This machine is used to combine the operations of storing pallets in the racks together with the high-bay picking operations, as the cabin moves up at the same time as the forks.



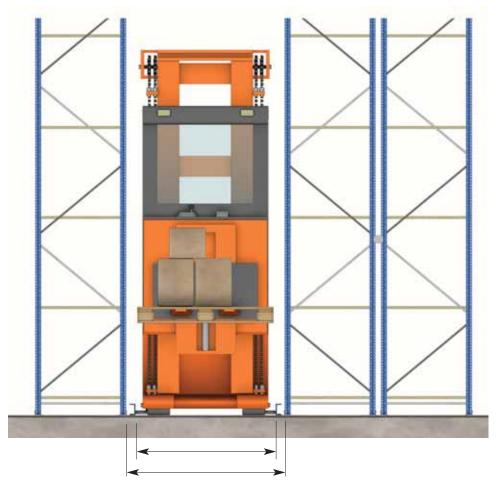


Order picker trucks, as with turret trucks, need to be guided along the inside of the storage aisles.

The machines can be wire-guided. In this case a wire, buried in the warehouse floor, produces a magnetic field which steers the progress of the truck. Alternatively, the truck can be mechanically guided by means of special profiles fitted at both sides of the aisle and anchored to the warehouse floor.



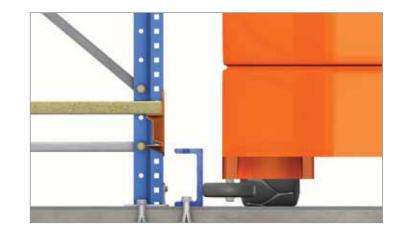
Each model of machine needs its own type of guide rail and a distinct aisle width. The aisle width is defined by the distance between the guide rails and the distance between the load levels.



#### Guidance with a 100 UPN profile

This is the most commonly-used solution: the profiles are arranged in parallel and anchored to the warehouse floor. The first storage level is fitted above the profile in an optimal position to be able to access the goods.

The 100 UPN profile can be replaced with another type of profile depending on the requirements of the machines.



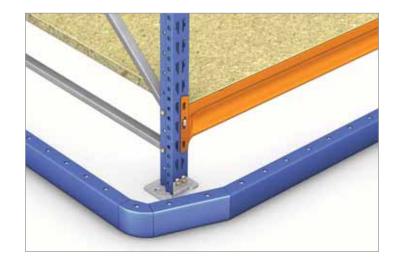
#### Wire-guidance

A wire buried in the warehouse floor produces a magnetic field which steers the machine.

This guidance system is not generally used with this type of machine, except when it is combined with VNA turret trucks for pallets.







At the entry of the aisles with mechanical guidance, entry profiles are fitted with a guide entry used to centre the machines. It is very common for basic racking for picking served with order pickers to be combined with other storage systems, mainly with live racking or pallet racking.

In both cases the main objective of the basic racking is the storage of products with a medium and low turnover, reserving the live racking or pallet racking for articles with a high turnover.

On each side of the same aisle there may be access to different types of racking.

#### Example no. 1

In this installation, chiefly made up of levels of shelves, one of the racks contains pallets for the products with a high turnover. These are entered by one side with conventional forklift trucks. The inner aisle is accessed with the order picker at any level.





#### Example no. 2

This warehouse has two clearly defined areas. In the first there are racking aisles with shelves for products with a medium and low turnover. The remaining aisles are devoted to pallets served with turret trucks, with the exception of one aisle which is used by both systems.

The order picker machines can also enter the pallets area.



#### Example no. 3

In this case all the racks are for pallets, and are served by VNA trucks. The order picker machines can also enter these aisles to do picking operations.

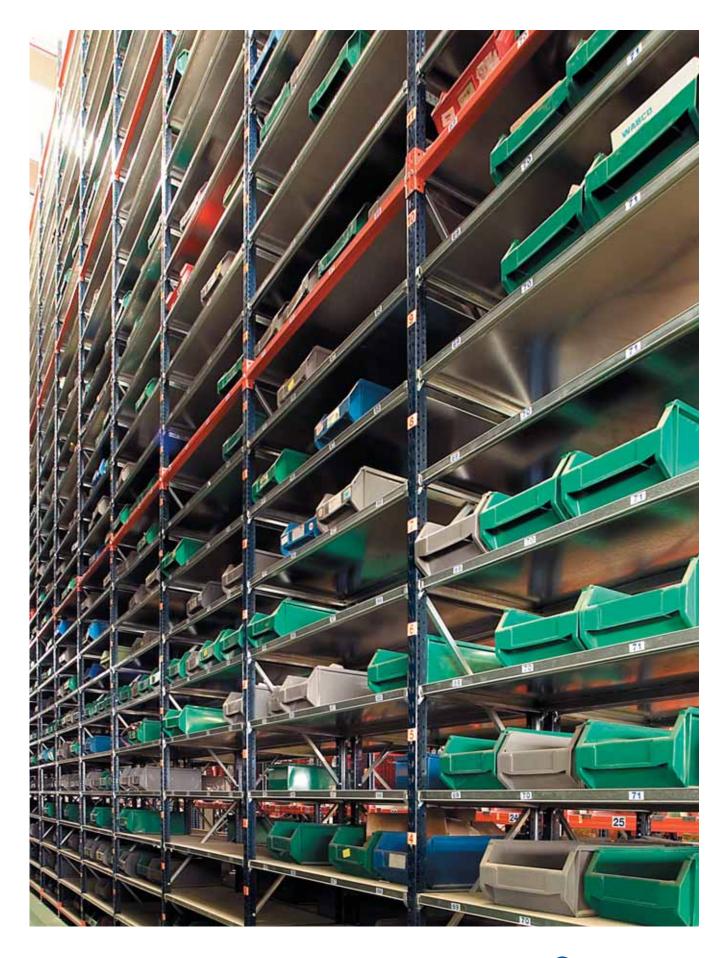


### **Portal ties**

These are profiles which join two racks at the top when transversal stability needs to be increased.









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