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## The Types of Industrial Racking: Choosing the Best One For Your Warehouse

There are many kinds of industrial racking systems available to warehouse facilities. The key to smooth operations is choosing the type that's best suited for your operations.

Which Industrial Racking Type is Best for Your Operations?

How to Choose the Right Industrial Racking Option for Your Facility



Industrial racking is arguably one of the most important pieces of equipment in a warehouse. Racks ensure that your goods are well organized and can be picked efficiently. However, many facility operators struggle to choose the correct shelving type to meet their operational needs. Understanding and implementing the best shelving solution is key to running an efficient warehouse.

### What are industrial racking systems?

Warehouse industrial racking is metal shelves designed to support inventory and other materials in an industrial facility. There are various types of these shelves, and choosing the right one is essential in ensuring that your warehouse operations run smoothly. There's a type of industrial rack for each situation, unit load, or storage need, but each will help optimize space compared to keeping stuff on the floor.

### The functions of industrial shelving include:

1. Increased storage space utilization
2. Maintaining inventory organization
3. Decreasing the number of damaged items
4. Boosting employee productivity
5. Improved workplace safety

### A solution for modern warehouse needs

Consumer demand is higher than ever with the increase in online shopping. This means that logistics and distribution centers need to have optimized storage to meet today's high demands and remain competitive, which is where racking systems come into play. Industrial storage systems have advanced from adjustable racks to the current versatile and adaptable systems that can meet the needs of each facility. Therefore, having the right storage solution integrated into your operations will help you fulfill modern customer needs.

### Types of industrial warehouse racking systems

There are many different kinds of industrial metal racking systems that are used in warehouse operations. That means before you invest in a warehouse storage solution, it's critical to understand the functions and uses of each type. By taking the time to evaluate each racking solution, you can ensure that you get the best one for your facility's needs.

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Here's an overview of the various types of industrial racking solutions:

## 1. Adjustable Pallet Racking (double-deep, VNA, conventional)

Adjustable pallet racks are the most popular warehouse storage solution. They allow you to change the dimensions of the storage structure to meet your needs, limiting the amount of unutilized space in your facility. These systems also give you the option to customize the shelves to assist in the picking process. The system is made from modular steel frames composed of vertical and horizontal beams. Depending on your needs, you can choose from a conventional, VNA, or double deep adjustable racking system.

## 2. Compact Racking (drive-in, drive-through)

Compact racking systems pack a high density of goods into a small space, allowing you to store more on the shelves. These solutions minimize or eliminate the need for aisle picking as pallets are retrieved by lift trucks through the front or rear of the racks. The two types of compact racks are drive-in and drive-through. With drive-in racks, the trucks load and unload materials by entering through the front and then backing out. With drive-through racks, the lift trucks can enter through either end when loading and unloading, which requires an additional aisle.

## 3. Live Storage Systems (gravity, push-back)

There are two kinds of live storage systems, gravity racks, and push-back racks. Gravity racks are composed of downward sloped conveyors in which the pallets or carts move to the front once the previous item has been removed, making them a good option for first-in-first-out picking. On the other hand, push-back racks are better suited for last-in-first-out picking as the carts move along inclined conveyors rather than downward sloped ones. Both systems have a variety of configurations that can accommodate single and double-wide pallet rows.

## 4. Mobile Pallet Racking

Mobile pallet solutions are composed of selective or cantilever racks mounted onto mobile carts that travel down tracks. You can mount the tracks into the floor or run them on top of the flooring. The portable rack is controlled electronically with a radio remote control, allowing you to direct it wherever you need it to go, eliminating the need to use forklifts to transport goods. These systems enable aisles to be opened up when necessary, which limits unused aisle space.

## 5. Longspan Shelving

Longspan shelves are designed for facilities that deposit and remove items from shelves manually. The solution uses vertical height effectively by allowing the higher shelves to be accessed mechanically through a machine that lifts the operator. Additionally, the levels are adjustable so that they can accommodate a variety of different goods. This racking solution is ideal for facilities with limited floor space but still have a high volume of goods.

## 6. Multi-tier Racking

Multi-tier racking allows you to utilize space on multiple levels, which maximizes your use of vertical space. This makes it easier to store a higher volume of inventory because it increases the overall capacity of your facility. Your team can access each level of the system using staircases, main aisles, and cross aisles. Multi-tier racks allow easy access to all pieces stored in them and can be customized to fit different load sizes, making them well suited for units with medium turnover rates.

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## 7. Carton Flow Racking

Carton flow racking systems, or carton live storage, allows you to store a high volume of cartons and light items, leading to optimal space utilization and decreased pick times. With this system, there are distinguished loading and unloading zones that limit the number of mistakes. The carton flow shelving system reduces distances that pickers need to cover in the facility, making it a good fit for companies with large-scale manual picking operations.

### How to choose the best warehouse racking systems

A shelving solution can make or break your warehouse operations. Before selecting a system to implement in your facility, you must take time to understand your space limitations, operational requirements, and budget. This will help to ensure that you choose the industrial shelving system that best suits your facility's needs while optimizing your storage space.

### Tips to help you choose the best system for your warehouse operation:

1. Consider the storage density of each solution and compare it to your warehouse space and inventory
2. Choose a rack system that utilizes first-in-first-out or last-in-first-out depending on your operations
3. Understand your picking methods- do you primarily use manual picking or forklift picking?
4. Identify federal, state, and local laws about shelving height
5. Weigh your pallets so that you can ensure you choose a system that supports your heaviest load
6. Determine your budget and how much you're willing to spend on a system

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