Pallet Flow Rack

Deluxe Systems represents 3D Storage Systems for Pallet Flow rack. 3D Storage Systems offers a wide range of high-density dynamic pallet flow products which are engineered to meet your specific needs.


3D flow products include:

- Skatewheel lanes for picking systems
- Polycarbonate wheels for typical pallet flow applications 4-26 pallets deep
- Rollers, both 1.9” and 2.5” diameter for custom pallet/container requirements

What is Pallet Flow?

Pallet flow, or flowrack, is a pallet storage method that uses wheels or rollers to convey and accumulate pallets in a storage module. Depths can range from 2 to over 20 pallets deep, thereby giving you higher storage density than other forms of racking. Because pallets travel from the load end to the unload end on their own, forklift travel is reduced.

Finally, the first pallet loaded into a lane will be the first pallet unloaded, giving you First-in First-out or FIFO. When a pallet is removed from the unload end, the pallets in behind will roll forward one position and come to rest on the ramp stops at the end of the lane. With flowrack, different forklift operators can independently load and unload pallets.

How does Pallet Flowrack Work?

A flowrack system contains either a set of wheel tracks or full width rollers set on a slight slope downward from the load end to the unload end. When an operator places the pallet in the first position, the pallet begins to roll forward toward the other end. Speed controllers are installed in the lane to ensure the pallet travels in a safe manner to the unload end. The operator can continue to load pallets into the lane, and they will accumulate until the lane is full.

When a pallet is removed from the unload end, the pallets in behind will roll forward one position and come to rest on the ramp stops at the end of the lane. With flowrack, different forklift operators can independently load and unload pallets.

There are many factors in determining the type of wheel to be used in a flowrack system. First and foremost is the pallet depth and application. If the system is only 2 or 3 pallets deep and to be used as a picking operation, then 1.9" diameter steel skatewheels may be used. Deeper storage lanes tend to use larger diameter and wider polycarbonate wheels. Rollers are applied most often when the bottom of the pallet is not suited to wheels – plastic pod pallets, steel bins etc. In most cases 3D will test the pallets to find the best configuration for the pallet flow system.

Please contact us to schedule an appointment with a sales person that will assist you and work directly with the manufacturer's engineers to ensure that you receive the best product & design for your needs.

DELUXE SYSTEMS® INC.