

PALLET FLOW - THE BASICS

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



Our flow products include:

- Skatowheel 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



Our design staff has many years of experience in the supply of dynamic storage products and will configure the appropriate components to meet your criteria ensuring maximum system performance.

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.

Who Uses Pallet Flow?

Pallet flow applications typically involve high volume products; they can be found primarily in manufacturing environments where many pallets of the same item are produced. Others will use flowrack to stage orders for shipment, or in picking systems to store pallet loads of goods for high volume case picking.

What Determines the Type of Wheel or Roller Used in Flowrack?

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.

Learn about how our pallet flow solutions can work for you.

