

Performance Report

Using different sized shipping cartons eliminates packing stage, automates consolidation.

Roche Diagnostics

Challenge:

Incredibly slow system of flow racks and static shelving.

Solution:

Twelve White bottom-drive horizontal carousels.

Result:

Picking more than 120 lines per man hour. Same day shipped orders have doubled.



The system has 12 carousels that are configured into four picking pods.

At Roche Diagnostics Corporation distribution center in Indianapolis, the operators pick directly into four different sized shipping cartons.

This is one of several major benefits of a unique horizontal carousel system from White. As a result, a separate packing stage was eliminated and consolidation has been automated using bar code labels.

The system has a total of 12 carousels configured into four picking pods. Two pods are on the main floor and two are mounted above them used with a mezzanine which contains a box making station and storage area.

A bar code label is printed upon direction of the PC network after downloaded orders are batched. The label includes a code for the box size to be used and the location it is to be placed on the pick matrix. The computer selects the appropriate box size after calculating the cube of the orders to be picked. Once the boxes are made, they are placed on gravity flow racks above the matrix. The box making stations are directly in front of the picking areas.

Cooler Carousels

There are several other unique features in the system. Two of the carousels on the lower tier are enclosed in a cooler because of temperature-sensitive items.

These carousels are different as well. Within each pod, the two outer carousels each have 34 bins and the inner one has 32 bins. All the machines on the upper levels are seven-feet high, where on the lower level the two within the cooler are eight-feet high and the four outside are ten-feet high.



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The picker is able to fill various orders at the same time. The computer software directs him which box to place the items in.

“...Our stock control is much better now.”

The floor at the front of the lower tier was raised so the pickers can easily reach the upper shelves without the use of ladders. The track and wheels of the carousels are set just below the mezzanine floor level.

Full mezzanines are not necessary to double tier White carousels, but flooring was installed between them and the carousels are spaced wider than normal, to allow for manual picks during routine maintenance or power outage.

Most of the diagnostics are identified by lot number, serial number, and expiration date. In addition, Roche Diagnostics Corp. needed to keep items from different business divisions separate for control purposes. Carousel locations, however, are random, based on a size code.

Improved picking

The complex orders and the need for the operators to verify lot numbers prohibits high speed picking, but the firm has seen a marked improvement since the introduction of the carousels. “We’re picking more than 120 lines per man-hour,” says Chris Upwards, Manager of Process Engineering, “and our stock control is much better now.”

Service levels, as measured by the percent of orders shipped the same day, have more than doubled since installation of the carousels.

The system is designed to handle batches of eight orders picked concurrently but because of the nature of the orders handled by Roche Diagnostics, one order batches are common.

“The carousels replaced an incredibly slow system of flow racks and static shelving,” continues Upwards.

Roche Diagnostics is a major global supplier of medical diagnostic devices.



The system is designed to handle batches of eight orders picked concurrently.

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