

PERFORMANCE

MATERIAL HANDLING OPTIMIZATION

System Speeds Direct Mail Distribution Process, Reduces Fidelity Space Requirements by 50%

"If it weren't for this system, we would have had to build the warehouse twice this size"

Application

Provide automated replenishment to support high-volume order picking for a mutual fund manager's printing and distribution center.

The situation

Distributing more than 120 million pieces of mail to individual clients worldwide each year would be a tough assignment for any company. But for Fidelity Investments, one of the world's largest managers of mutual funds, handling the distribution of financial product literature from two centers across the country made the assignment even trickier. Adding to the challenge, both centers were running out of capacity due to Fidelity's rapid growth. The company solved the problem by consolidating its two printing and distribution centers into one facility, located near Cincinnati in Covington, Kentucky.

The desired solution

- Dramatically increase the number of loads that can be handled in the same building footprint.
- Remove a narrow-aisle lift truck from the warehouse aisles, improving safety, productivity, and uptime.
- Virtually eliminate inventory errors and paperwork.
- Reduce stock outs in the high-speed pick area.



- Improve customer service and order quality.

Solution implemented:

- Five-aisle unit load AS/RS
- 4,320 storage locations
- Sorting Transfer Vehicle (STV) loop with four STVs.
- Eight input/output aisle conveyors with an interface to the STV loop and AS/RS
- RTS-60 real-time inventory control software.
- Horizontal Carousels
- Conveyor System

To ensure customer orders were picked accurately and shipped quickly, Fidelity chose to install a combination of carousels and flow racks in its order-picking area. To replenish the order operation, Fidelity considered using lift trucks and conventional rack storage, but realized such a system would not meet the need to pick and ship up to 1,600 customer orders the same day they are received.

Cisco-Eagle proposed a fully integrated logistics system utilizing unit load Automated Storage and Retrieval System (AS/RS), Sorting Transfer Vehicles (STV), and Real-Time System (RTS) software. In this integrated system, RTS controls all inventory levels and locations in real time, directs replenishment of stock to the order-picking area,

Fully integrated system gives Fidelity unprecedented order picking speed

manages all order picking and controls the operation of the AS/RS and peripheral equipment.

Fidelity chose Cisco-Eagle's total integrated warehouse solution based on the advantages of reliable, error-free automation, real-time inventory control, and quick installation with a design that uses half the footprint of conventional rack.

"We needed a vendor that could come in and build the system very quickly," said Chris Cramer, senior vice president at Fidelity. "We couldn't afford long delays in getting the system up and running. And we couldn't afford unscheduled downtime, either. We picked this system because it has a modular



of materials, RTS directs the AS/RS to retrieve needed pallets and transport them via an STV to one of three replenishment pick stations. A picker takes the replenishment stock from the pallet, places it into a tote and attaches a bar code label. Hytrol conveyors send the tote to the correct order-picking area for restocking, and the picked-from pallet is re-stored by the AS/RS.

At the customer order-picking area, workers use a pick-to-lights system to quickly fulfill customer orders from the flow rack and carousel. After each pick, they press a "pick complete" button which immediately updates the RTS inventory levels. Completed orders are sent by conveyor to packaging, where they are readied for customer shipment.

The results

This fully integrated system gives Fidelity unprecedented speed in order picking, continuous inventory tracking, significantly more throughput in less space, near perfect order fulfillment, and the virtual elimination of inventory-related paperwork. And the system does it all in far less space.

"If it weren't for this system, we would have had to build the warehouse twice this size," Cramer said.

design and offered a very high level of reliability. The technology was not an untested product being customized just for Fidelity, but a proven system-proven hardware, proven software, and proven controls—currently in use in the U.S. and abroad."

The automated material handling system gives Fidelity great flexibility in managing a wide variety of material handling tasks while controlling inventory in real-time. When printed material is needed to replenish the flow racks and carousels, or for bulk shipping



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