

2-MINUTE OVERVIEW

Manufacturing Center Expands Output Without Facility Footprint Increase



Features/Benefits Provided:

- Reduced WIP Inventory
- Increased Space Utilization
- Reduced Product Handling
- Improved Manufacturing Processes
- Eliminated temporary off-site WIP storage

This manufacturing center customer needed to find ways to reduce operating expenses and increase product handling quality. They also needed to make these changes without increasing the size of the facility footprint in their very competitively priced real estate market. Finally, this customer needed a solution that could be flexible to handle new product introductions. Through customer collaboration, the supplier was able to deliver a highly automated solution to meet these business objectives.

This customer subsequently added three new product lines to this facility because of the benefits and efficiencies of this modern material handling system.

The manufacturing center's 14 docks receive raw materials and empty containers; these are then stored in the automated storage and retrieval system (AS/RS). The AS/RS consists of 3 aisles of rack supported storage that provide a total of 7,020 locations. Each of the three 90' SRMs are capable of handling over 100 loads per hour.

The AS/RS is fully integrated with 32 inertial guidance AGVs. The AGVs travel over 8,000' of path for delivery and pickup of material to the various manufacturing machines. Each AGV is capable of carrying

one pallet or up to four stacks of totes, trays, or magazines. The AGVs access over 400 different locations throughout the facility. Many of the locations are direct interfaces to automatic molding, assembly, or packaging machines.

The software control system was designed, programmed, and installed by the supplier. The system manages inventory, AGV traffic, and conveyor control.

The system hardware uses 2 IBM RS6000 computers with RAID disks to ensure redundancy. Allen-Bradley PLCs using AB DeviceNet provide all discrete communications.



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