

Features and Benefits Significantly reduce pallet and product damage

No plant interruptions during installation

Flexible solution for plant's changing production demands

Safe, reliable delivery of food and empty pallets

Industry Group: Automatic Guided Vehicle Systems (AGVS)

Laser Guided AGV System Delivers for a Major Food Manufacturer



Laser guided vehicles were installed because of the accuracy and ease with which the paths can be reprogrammed.

A major food manufacturer was faced with an important decision. The performance of the wire guided automatic guided vehicle (AGV) system that had been installed over 10 years ago was beginning to degrade and replacement parts were becoming difficult to locate. The AGV system reliability and downtime was becoming a major concern. The company needed to decide whether to repair/upgrade it, replace it, or to move away from automation and transport pallets manually. The system was used to transport pallets of boxed cereal between the palletizers, a stretch wrapper, an AS/RS, and staging lanes for shipment.

The manufacturer quickly eliminated the option of manually moving materials. Production forecasts called for transportation of 150 pallets per hour and all the areas serviced were grouped close together. Having up to 20 forklifts safely operate in this area would require carefully coordinated moves. In addition, with the plant operating three full shifts, up to 50 additional fork lift drivers would be needed making this the most expensive option.

In comparing repairing vs replacing the system they

found that there was only a 10% savings with the option of repairing the system. The added speed, flexibility, and performance of a new system more than made up for this savings and the company decided to install a new AGV system. The company selected laser guided vehicles because of the accuracy and the ease with which the paths can be reprogrammed. The laser guided vehicles allowed better routing and tighter traffic management which improved system efficiency.

The vehicles receive directions from a supervisory computer system. The system monitors and controls the vehicles in the system and communicates with existing PLC and warehouse management systems in the plant to facilitate movement of finished product.

Replacement of the AGV system proved to be a major success. Plant efficiency was improved and bottlenecks that were previously experienced were eliminated.



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