



New Automatic Guided Vehicle System Increases Floor Space and Storage Capacity

Features and Benefits

Interface with multi-tiered racking allows for increased storage capacity

Vehicle lift height up to 17ft

Narrow vehicle width for operation in narrow aisles

Reduced operating costs

Improved material flow

Flexible solution for plant's changing production demands

Industry Group: Automatic Guided Vehicle Systems (AGVS)



By taking advantage of a vertical load storage arrangement this considerably increased storage capacity per square foot.

An Automatic Guided Vehicle (AGV) system consisting of seven side loading vehicles with a telescopic platform replaced an existing AGV system at a major automotive manufacturing plant. The system facilitates movement of pre and post heat treated machined parts baskets.

The parts baskets are transported from the grinding machines into the heat treat furnaces and finally to the finishing machines. Between each of these movements the parts baskets are stored in a buffer multi-tiered storage racking system and are accessed according to the production demand. The AGVs also transport empty baskets to/from the rack storage area, and the grinding & finishing machines.

The side reaching telescoping platform on the vehicles retrieves baskets from racking and can turn 90 degrees to store the basket on board the vehicle during transport, allowing for two loads to be transported at a time.

The old AGV system only allowed for product to be stored on the floor. The new vehicles can interface with equipment at varying heights and can reach up to 17ft. This allowed for the installation of multi-tiered narrow aisle rack storage. By taking advantage of a vertical load storage arrangement this considerably increased the storage capacity per

square foot and the facility gained approximately 1,100 square feet of floor space.

Another advantage of the AGVs ability to interface with multi-tiered racking is that it provides independent access to each and every load within the storage area as needed.

The varying lift heights of the vehicles also allowed for the elimination of lift sections at the furnace conveyors, which reduced conveyor maintenance and operating costs.



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