

Heavy Duty Automatic Guided Vehicles Maximize Material Flow in Major Auto Manufacturing Facility

Features and Benefits

Vehicle capacities up to 60,000lbs

Reduced operating costs

Improved material flow

Flexible solution for plant's changing production demands

Traffic control system maximizes material flow

Industry Group: Automatic Guided Vehicle Systems (AGVS)



The AGVs are monitored in real time by the AGV Control Server to optimize material flow and allow the vehicles to share the same guide path.

A fleet of four Automatic Guided Vehicles (AGVs) transports steel blanks and dies in between sheet rack conveyors, a die storage area and five press/stamping lines for a major automotive manufacturing facility. The system consists of three 12,000lb capacity blank handling vehicles, and one 60,000lb capacity die handling vehicle.

The Blank Handling vehicles are equipped with bidirectional roller conveyors. The Blank Handling AGVs transport stacks of blanks between the sheet rack conveyors and the press lines. Requests to move blanks are generated by a plant material handling computer and sent to the AGV system host computer.

The Die Handling vehicle facilitates the transport of dies between a die storage area and the press lines, plus one die repair location. The Die Handling AGVs receive all material movement requests from an operator on the floor via a touch screen located on the vehicle control cabinet. When an operator inputs a request the vehicle proceeds to the selected

destination and waits for a crane to transfer the die onto of off of its load deck. When the operation is complete, the operator will dispatch the vehicle to a new destination.

The AGV Control Server communicates with the AGVs in real time to manage and optimize material flow, allowing the Blank Handling AGVs and Die Handling AGV to operate on the same guide path.

The AGVs navigate using accurate laser guidance. The flexibility of the laser guidance allows guide path changes to be implemented quickly and easily.



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