

Solution Analysis and Design

Selecting the Right AGV

Problem: When deciding on AGV's for an application, which type should be considered?

AGV's can be a viable alternative to conventional material handling methods, but choosing which type of AGV is right for your application is a critical first step in the planning and implementation process.

Many different types of vehicles are available to accommodate many different types of end user needs.



Forklift AGV



Conveyor Deck AGV



Lift Deck AGV

Solution: Determining the best fit for your application.

When considering which type of AGV will be the best fit for an application, consider how loads will be presented for movement. For example:

- Will loads be staged on the floor, conveyors or stationary stands?
- Will loads need to be picked and dropped within a rack structure via AGV's?
- Below is a table outlining vehicle capabilities paired with application specifics:

Application Specifics	AGV Types		
	Forklift	Conveyor Deck	Lift Deck
Floor Staging	x		
Conveyor Staging Multiple Heights	x		
Conveyor Staging Constant Height	x	x	
Loads Moved In Pairs		x	
Rack Interface up to 21ft (2200lb max)	x		
Rack interface up to 35ft (2200lb max)			
Load Stand Staging	x		x

Determining the vehicle type is important to anyone interested in implementing AGV's within their facility. As one might imagine, the cost of AGV implementation increases with increased functionality. The simplest solutions can be implemented with the smallest capital investment. As an end user, simple load interface solutions like loads stands or conveyors of consistent height can yield a solution for a more affordable vehicle type.

Benefits	AGV Types		
	Forklift	Conveyor Deck	Lift Deck
Lower Cost		X	X
Most Flexibility	X		
Higher Load rating		X	
Ability to fit within many layout configurations	X		

Constraints	AGV Types		
	Forklift	Conveyor Deck	Lift Deck
Horizontal Transport Only		X	X
Diminished capacity at higher reach levels	X		

As loads are presented into an automated material handling system, the number of different methods of load presentation, storage and delivery will determine which vehicle is desirable and ultimately the complexity (either more or less complex) of the vehicles. Multiple vehicle types can be implemented within a system to accommodate differing needs in different areas within an environment giving more flexibility to the total system.

Links: [More Supporting Information](#)

The following links provide additional information on products and services described above:

- [AGV - Freezer](#)
- [AGV - Fork](#)
- [AGV - Unit Load](#)
- [AGV - Eagle Technology](#)
- [AGV - HK40 Automated Guided Vehicle](#)
- [AGV - HK75T Turret Automated Guided Vehicles](#)
- [AGV - Eagle III Upgrade](#)
- [HK Unit Load AGV Video](#)
- [HK Fork AGV Video](#)



HK Planet Problems and Solutions