

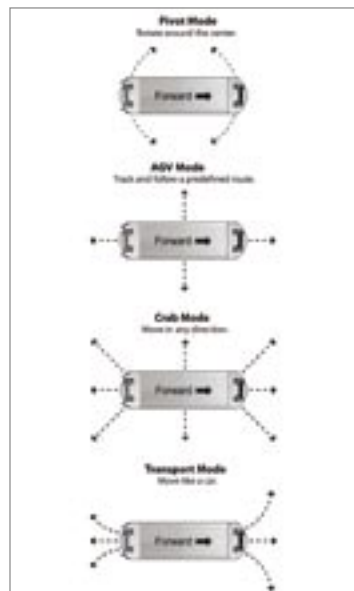


AIT Automated Guided Vehicles

Ultimate flexibility is a premium when it comes to maneuvering on a plant or factory floor during the aircraft manufacturing process. And AIT's Automated Guided Vehicles (AGVs) – customized to a customer's exact requirements – are designed with the maneuverability needed to transport and position any precision tooling, assembly equipment, people, and large structures.



ASSEMBLY CART ⚡ Transporting a fuselage section.



DRIVE MODES ⚡ Multiple drive modes make AGVs extremely maneuverable.

JOYSTICK CONTROL ⚡ To drive the vehicles and maneuver AGVs for precise control.



Two frequently used types of AIT AGVs are the complete fuselage transporters and section transporters, with integrated functions for lifting and positioning. These omni-directional vehicles can move their load axially, laterally, or as needed to maneuver safely and efficiently through a facility and into/out of work cells.

For load carrying capacity, each truck is equipped with a multi-wheel design with all-wheel synchronized steering.

The transporters can also function in tandem mode, where two AGVs work together as one unit. The vehicle's steel structure offers the utmost in stable and durable construction, while maintaining flexibility. The chassis is a low picture frame style design containing a wheel system in each corner. This design allows the AGVs to slightly articulate to adapt to deviations in the factory floor.

Drive Modes

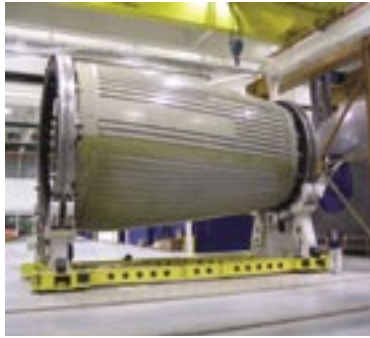
What makes the AGVs so flexible is the design of the drive modes, giving our AGVs unrivalled mobility to

maximize floor space and reduce the costly labor associated with moving and positioning aircraft components.

Precise Control

For precise, controlled movements, the AGV is outfitted with an advanced onboard control system, including sensors and cameras, for unparalleled performance. Users can easily maneuver the equipment from either a graphical user interface (GUI) touchscreen or joystick.

From the GUI touchscreen on the main control panel, the user can make command mode and function changes, such as lifting modes, tandem mode, etc., from a single screen. Because of its intuitive design, training a user is an incredibly simple process, which equates to reduced cycle time and fewer errors. From the joystick, the user performs the actual driving of the vehicles.



FABRICATION CART 🚚 With aft fuselage section.

SEGMENT CART 🚚 With aft fuselage panel segment.

TRANSPORT DOLLY 🚚 Automated transport dolly with wing box.

ASSEMBLY CART 🚚 Transporting a fuselage section.

DRIVE UNIT 🚚 AIT's drive units can move in any direction for optimum maneuverability.

Drive Units

The larger transporters are equipped with twin drive units, each powered by electrical motors: a drive motor that controls the speed and a steering motor that adjusts the wheel angle. All drive units are controlled with the Programmable Logic Controller.

Unlike conventional wheels that can only roll forward and backward, the AIT drive unit can rotate on its own axis and move the machine in any direction. Again, this flexibility results in maximized use of a facility as well as optimum maneuverability in tight spaces.

Advantages

- Highest degree of mobility (free 360° movement) for safe and precise positioning and movement
- Customizable designs to fit any factory needs
- Single AGV or tandem mode for larger structures
- Easy-to-use touchscreen and joystick for precise maneuverability
- Small, compact design of drive unit constructed of high durometer materials for longer life and less maintenance



FUSELAGE TRANSPORTER 🚚 Transporting 787 Dreamliner fuselage.



TOUCHSCREEN 🚚 The intuitive nature of the GUI touchscreen makes them extraordinarily easy to use.

About AIT

Advanced Integration Technology (AIT) is a leading industrial automation company delivering turnkey factory integration solutions to the Aerospace industry. Accustomed to managing multiple large, simultaneous, international projects, AIT has served as the full-scale integrator to some of the most prominent Aerospace companies' cutting edge projects. Relying on the strength of our diverse team of engineering pros, AIT has earned a leading position as the predominant turnkey integrator and prime contractor to the world's foremost Aerospace companies – including Airbus, The Boeing Company, Bombardier, Spirit AeroSystems, and Vought Aircraft Industries. Our precision-engineered technology and automation have enhanced the industry's ability to manufacture aircraft in less time and with greater exactness and flexibility. Learn more at www.aint.com



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