

# AUTOMATIC GUIDED VEHICLE



TUG-CART MOUSE 3AB



TUG-CART MOUSE 3A

# TOYOTA AGV

The Toyota "Mouse" Type AGV is a cost effective solution designed to optimize the manufacturing and assembly line process by automation. This simple to use AGV can be added to any existing assembly line by simply laying down a self-adhesive magnetic guide-path tape.

With the ability to fit into tight areas, to share aisles with pedestrians and lift-truck traffic, and to easily adapt to future change, the Toyota AGV is an efficient, dependable and versatile material handling solution.

# FEATURES AND BENEFITS

- The Toyota AGV increases profits by reducing labor requirements, eliminating product damage, and ensuring on-time material delivery.
- Onboard software allows for multiple routes to be stored in memory, which can be initiated by entering the route number and pushing start.
- The low profile design allows the AGV to navigate underneath a cart, automatically raise the tow pin and haul the cart away.
- Optical sensors can be programmed for different zones to allow safe operation near pedestrians and confined spaces such as walls and racks.

# TOYOTA TUG-CART MOUSE AGV BASIC SPECIFICATIONS

Model	Mouse 3A10	Mouse 3A15	Mouse 3AB10	Mouse 3AB15
Electrical System	24 Volt			
Battery Capacity	24 Volt / 24 Ah			
Guidance Method	Magnetic Induction			
Travel Direction	Forward ONLY		Fwd/Rev	
Maximum Weight Capacity* (Including AGV)	1000Kg	1500Kg	1000Kg	1500Kg
Maximum Drawbar	48Kgf	80Kgf	48Kgf	80Kgf
Speed	Maximum	50M/min	33M/min	50M/min
	Settings	15 Programmable Speeds		
Travel Instruction Method	Relative Address: Multiple Routes on Demand			
Drive Type	DC Brushless Motors w/ Dedicated Drivers			
Steering Method	Differential (2 Driving W heels)			
Braking Method	Electromagnetic			
Cart Engagement Method	30mm diam Retractable Pin			
Coupling Sensor	IR Optical Receiver to Lower Pin			
Optical Communication	IR 8bit Sensors (Vertical and Horizontal)			
Drive Unit Up/Down Method	Electric Lift (Push Button)			
Control Panel Display	Programming Interface w/ Error Codes			
Safety Devices	Bumper	Tapeswitch Monitored Bumper (Failsafe)		
	Obstacle Sensor	IR w/ 15 Programmable Views (Laser Type optional)		
	Stack Light	2 Color: Running and Warning		
	Chime & Melody Box	Multi-Tune Music Box; Running & Fault Chime		
	Safety Circuit	Safety Rated Relay Wired for E-Stop & Bumper		
	E-Stop	Button and Limit Switch for External Use		
Limit Switches	Breakers for: Main, Drive Motors, Pin, and Drive Lift			
Limit Switches	For External: Start, Stop, E-Stop, and Bumper			
Minimum Turning Radius	600mm			
Overall AGV Weight (w/ Batteries)	180Kg		230Kg	
Dimensions	Overall AGV Length	1710mm		2100mm
	Overall AGV Width	360mm		
	Overall AGV Height	170mm		
Floor Conditions	Slope	1% or less		
	Step (Ridge)	5mm or less		
	Gap (Crack)	20mm or less		
	Waviness	10mm or less over the length of AGV		
Working Environment	Temperature	0 to 40 degrees Celcius		
	Humidity	35% to 85% RH (No Codensation)		
	Outdoor Use	Prohibited		

\*Weight capacity is an estimate ONLY. Actual capacity depends on dolly configuration (shape, size, weight, casters)

## System Integration Options

- RF Communication
- PLC
- RFID
- Opportunity Charging
- "AVINU" Traffic Control Software

