

**Universal-use, Attachment-configured, Chassis**  
**Low Transfer or Towing Conveyance**  
**1,700 Pounds Standard Capacity**  
**Virtual Path™ 'Tape-free/Target-free' Navigation**

Savant Automation's DC-10i AGV is a low profile, universal use, attachment-configured load transporter. Because it is modular, it can be provided with various attachments to adapt to load pick/drop & transport needs.

**Drive Under 'Tunnel' Cart Transportation:** The DC-10i has an extremely low profile allowing it to tunnel under pre-positioned carts. This is ideal where loads on carts and where carts need to be picked up and dropped off automatically.

**Versatile Application:** The DC-10i is ideal for demanding material transportation applications, including use in manufacturing, distribution, hospitals, etc. It can be used to tunnel under & transport carts, configured with powered roller or lift /lower deck, utilized for towing strings of carts, and can integrate with other automated system processes.

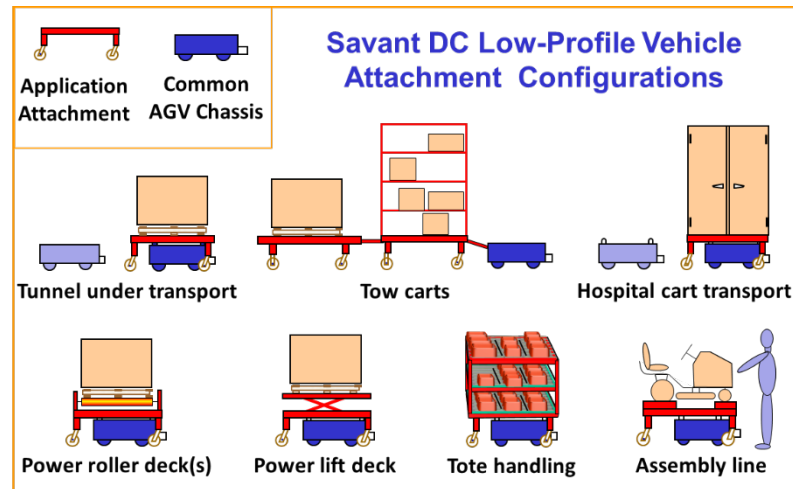
The vehicle is ideal for transporting loads between work cells, from picking areas to shipping, receiving to storage, buffers to line feed locations, as well as supporting input/output of stretch wrappers and palletizers or used in assembly line applications. This highly maneuverable AGV can safely travel in high traffic and in tight, space-restricted areas.

**Savant Virtual Path™:** The DC-10i utilizes a highly reliable and accurate, navigation system employing an inertial sensor chip to compare AGV heading and positional data to a virtual route CAD map in the vehicle's memory. It is ideal for all environments, especially where damage vulnerable magnetic/optic floor tape, floor cut slots or line-of-sight dependent laser reflective wall targets, or wall-reliant lidar natural/contour technologies are not practical or desirable.

**Existing or New Facility Use:** Savant 'Virtual Path' AGV systems requires minimal installation time, can be quickly changed and safely operate in people corridors.

**System Control:** The AGV control system can operate in standalone mode or be integrated with a user's PLC/IT/production control system networks. AGV call & dispatch can be provided via load sensors, local call devices or cart RFID tags. The Savant system controls support interface with elevators, robots, conveyors, doors, etc.

**iQ-CAN™:** (i**ntelligent** **Q**uick **C**onfigurab**le** **A**utomat**ion**™): The DC-10i is available with Savant's visual-based control system. iQ-CAN utilizes a standard graphical PC program to configure AGV system path/operation without software coding, provides system design simulation and visual confirmation of operation before installation or change.



**Standard Features:**

- Fully automated operation
- Onboard or remote dispatching
- Auto-return to battery charge area when battery is low
- Diagnostic mode for fast, easy troubleshooting
- Easy access to user controls
- Remove/Enter anywhere along path without resetting system controls
- Pendant for manual operation
- Steel frame construction

**Options:**

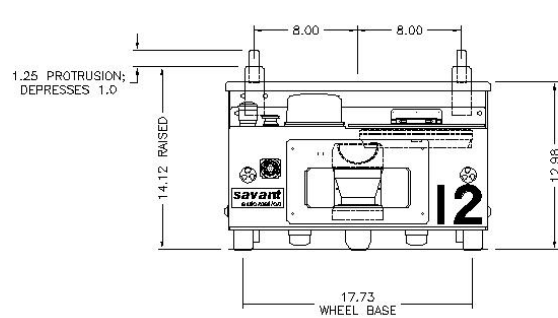
- Automatic cart elevation
- Elevator interface
- Automatic reversing
- iQ-CAN™ system controls
- Remote system management and vehicle dispatching
- Automatic charging
- Turn signals
- Custom load handling configurations
- Voice annunciation

**Warning and Safety Devices:**

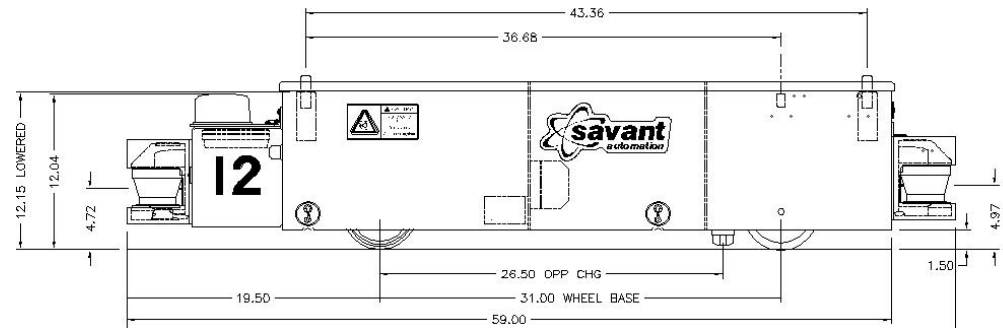
- Programmable safety laser scanner
- Emergency stop buttons
- Audio beeper while in motion
- Flashing warning lights while in motion
- Location-selectable speed, horn & light settings

**Display/Control Panel:**

- Industrial grade tablet
- Status (on path, low battery, error messages etc.) and prompts for operator actions
- Easy to customize (route assignments, etc.)



### Mechanical Specifications



### Controls Specifications

<b>Capacity (gross)</b>	1,700 lbs. (cart or powered deck)
<b>Ramp Capacity</b>	Up to 6% with reduced capacity
<b>Load Type</b>	Application specific Attachments: Tunnel/Pinned Platform Cart, Towing, Roller Conveyor, Chain Conveyor, Shuttle or Lift Deck
<b>Drive</b>	Single wheel steer/drive
<b>Steering</b>	Steered-wheel with fixed load wheels
<b>Drive Motor</b>	0.13 kw permanent magnet motor
<b>Drive Wheel</b>	5.9" (159mm) diameter x 2" (50mm) wide Vulcolan
<b>Caster Wheels</b>	6" (152mm) diameter x 2" (50mm) wide
<b>Frame</b>	Unitized structural steel
<b>Brake</b>	Electric, fail-safe
<b>Manual Operation</b>	Pendant control
<b>Approx. Weight</b>	350 lbs. empty
<b>Automatic Speed</b>	200 fpm max. (61 mpm); 16 speed ranges, programmable area speeds
<b>Turning Radius</b>	3' minimum (approximates pivot about inside rear wheel)

<b>Controls</b>	Microprocessor, CAN bus
<b>Electrical System</b>	24-volt power
<b>Navigation System</b>	"Virtual" wireless navigation (inertial - 'tape/target-free')
<b>Communications</b>	WiFi, 900 or 450MHz RF bands
<b>Safety</b>	Multi-range, selectable profile safety-rated laser sensor(s)
<b>Nominal Positioning Accuracy</b>	± 1" (25.4mm) longitudinal, ± 1" (25.4mm) latitudinal Tighter tolerances - optional
<b>Battery System</b>	Maintenance-free, TPPL battery set with discharge sensor
<b>Battery AH</b>	Two (2) 12V, 86AH amp-hour
<b>Battery Cycle</b>	8 hours minimum, based on standard duty cycle of 20% idle, 40% in motion full speed loaded, 40% in motion full speed unloaded.
<b>Charging Method</b>	Automatic (Fast) charging or optional built-in charger.

