

- Universal-use, Attachment-configured, Chassis
- Low Transfer or Towing Conveyance
- 5,000 Pounds Standard Capacity
- Virtual Path™ 'Tape-free/Target-free' Navigation

Savant Automation's DC-20i 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-20i has a 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-20i 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.

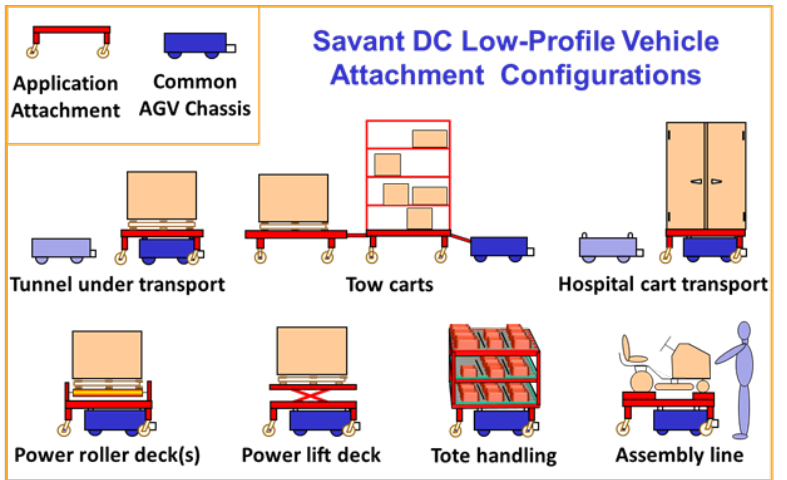
The vehicle is ideal for transporting loads between work cells, from picking areas to shipping, receiving to storage, buffers to line feed locations, as well as supporting input/output of stretch wrappers and palletizers or used in assembly line applications. This highly maneuverable AGV can safely travel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

Savant Virtual Path™: The DC-20i 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-20i 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:

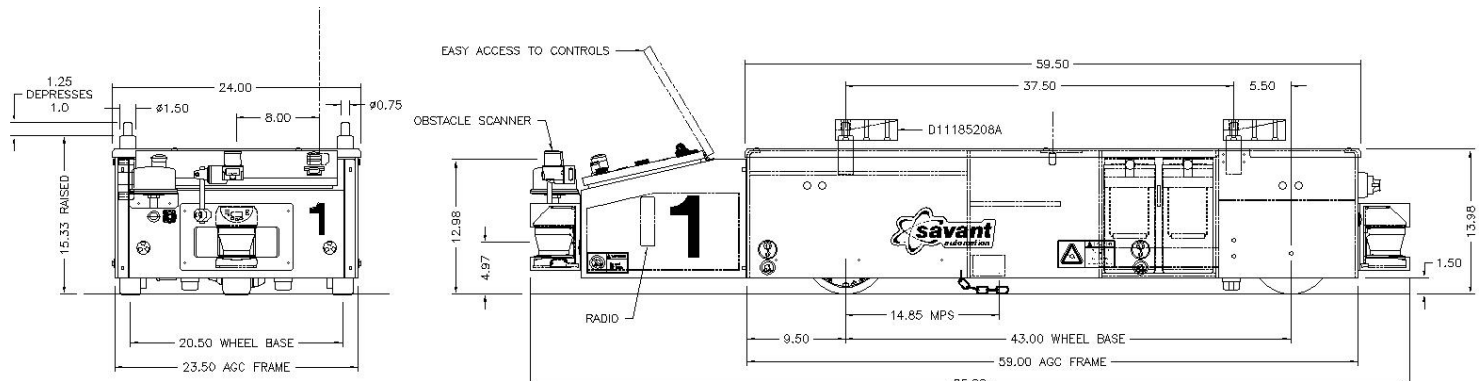
- Automatic cart elevation
- Elevator interface
- Automatic reversing
- iQ-CAN™ system controls
- Remote system management and vehicle dispatching
- Automatic charging
- Turn signals
- Custom load handling configurations
- Voice annunciation

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

Capacity (gross)	5,000 lbs. (cart or powered deck) 3,500 lbs (reversing and dual pins)
Ramp Capacity	Up to 6% with reduced capacity
Load Type	Application specific Attachments: Tunnel/Pinned Platform Cart, Towing, Roller Conveyor, Chain Conveyor, Shuttle or Lift Deck
Drive	Single wheel steer/drive
Steering	Steered-wheel with fixed load wheels
Drive Motor	1.0 kw AC motor
Drive Wheel	8.27" (210mm) diameter x 2.76" (70mm) wide Vulcolan
Caster Wheels	8" (203mm) diameter x 2" (50mm) wide
Frame	Unitized structural steel
Brake	Electric, fail-safe
Manual Operation	Pendant control
Approx. Weight	1,300 lbs. empty
Automatic Speed	200 fpm max. (61 mpm); 16 speed ranges, programmable area speeds
Turning Radius	3' minimum (approximates pivot about inside rear wheel)

Controls Specifications

Controls	Microprocessor, CAN bus
Electrical System	24-volt power
Navigation System	"Virtual" wireless navigation (inertial - 'tape/target-free')
Communications	WiFi, 900 or 450MHz RF bands
Safety	Multi-range, selectable profile safety-rated laser sensor(s)
Nominal Positioning Accuracy	± 1" (25.4mm) longitudinal, ± 1" (25.4mm) latitudinal Tighter tolerances - optional
Battery System	Maintenance-free, TPPL battery set with discharge sensor
Battery AH	Two (2) 12V, 166 AH amp-hour
Battery Cycle	8 hours minimum, based on standard duty cycle of 20% idle, 40% in motion full speed loaded, 40% in motion full speed unloaded.
Charging Method	Automatic (Fast) charging or optional built-in charger

