

### 7,000 Pounds Standard Capacity

### Virtual Path™ 'Tape-free/Target-free' Navigation

Savant Automation's DC-20L Automatic Guided Vehicle is a compact load transporter. The AGV/AGC can be provided with various configurations to suit most any application.

**Drive Under 'Tunnel' Cart Transportation:** The DC-20L has an extremely low profile allowing it to drive under pre-positioned carts. This is ideal for cart transportation where the loads on their own carts and in applications where carts need to be picked up and dropped off automatically.

**Material Transportation:** The DC-20L is suitable for many material transportation applications, including use in manufacturing, distribution, commercial, hospitals, clean rooms, etc. It can be configured with powered roller deck, powered lift/lower deck, utilized for towing strings of carts and can integrate with other automated system processes.

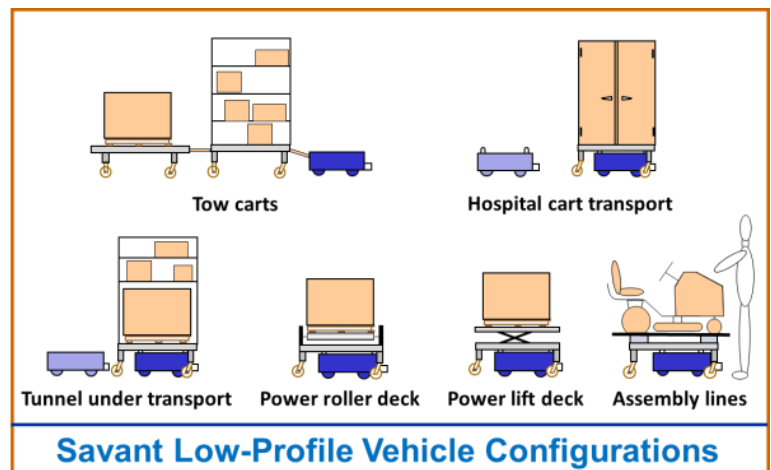
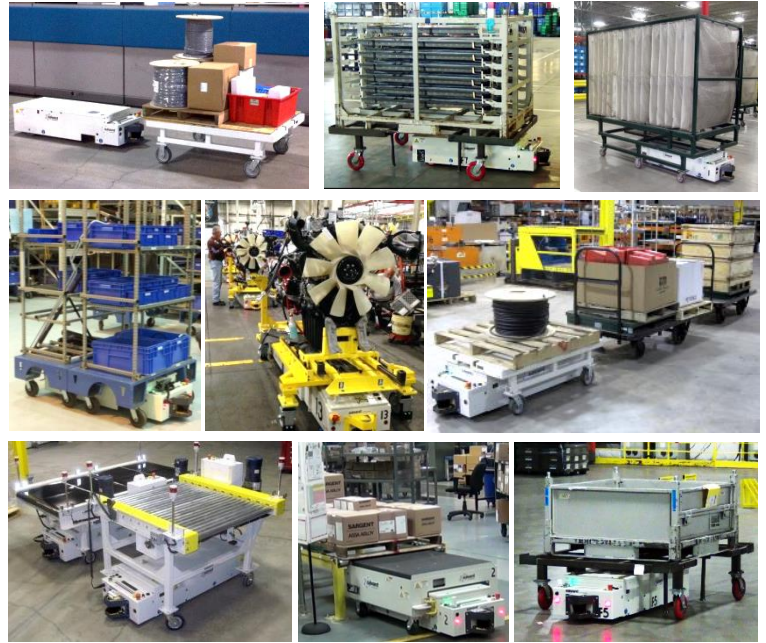
The vehicle can be used for material movement between work cells, from palletizer to stretch wrap, from packaging to shipping, from receiving to storage, and as a work in process transporter. It can transport racks, pallets, roll stock, slip sheets, trays, totes, carts, Gaylord containers as well as fixtured assemblies. This highly maneuverable AGV can safely travel in high traffic and in space-restricted areas.

**Assembly Lines:** When used for assembly line systems, the DC-20L can transport a workpiece through a multi-step assembly process. Assembly operations take place directly on the DC-20L which would be equipped with the desired mobile work table platform that can also be designed to elevate workpieces for best ergonomic working levels. The control system can be integrated with a user's production control system to insure the AGV is released from a work station only when the required operations are completed.

The DC-20L utilizes the state-of-the-art **Savant Virtual Path™** navigation employing a solid state inertial sensor to compare AGV heading and positional information to a CAD route map in the vehicle's memory. This is ideal for environments where magnetic/optic floor tape or laser reflective wall targets are not desirable or practical.

**System Control:** The AGV control system can operate independently, be integrated with a user's IT network or interface with PLC networks and other control systems. Remote AGV call & dispatch can be provided via cart sensors, local call devices and cart RFID tags.

The DC-20L is also available with Savant Automation's revolutionary **iQ-CAN™** system controls. iQ-CAN (intelligent Quick Configurable Automation) utilizes a standard PC program that permits quick, easy system design, and allows users to easily make changes to their own systems.



#### Standard Features

- Fully automated operation
- SMART vehicle control logic
- Auto-return to battery charge area when battery is low
- Onboard diagnostic mode for fast, easy troubleshooting
- Easy access to user controls
- Remove/Enter on path anywhere without resetting controls
- Pendant for manual operation
- Steel frame construction

#### Warning and Safety Devices

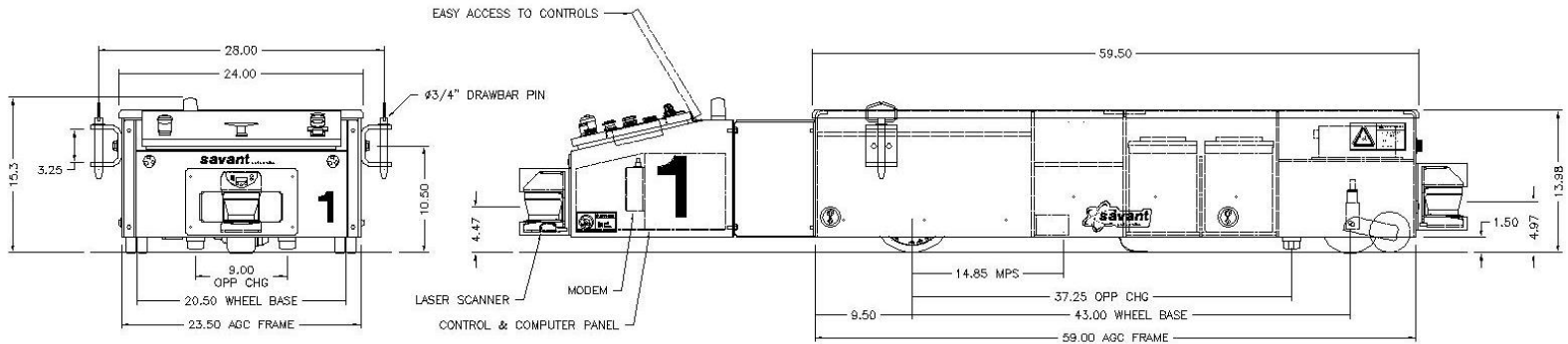
- Programmable safety laser scanner
- Emergency stop buttons
- Audio beeper while in motion
- Flashing warning lights while in motion

#### Options

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

#### Display/Control Panel Features

- Easy to read, 40 characters by 2 line display or industrial grade tablet
- Status, prompts and error messages displayed
- Displays AGV's current status (on path, low battery, etc.)
- Easy to customize



### Mechanical Specifications

<b>Capacity (gross)</b>	7,000 lbs. (cart or powered deck)
<b>Ramp Capacity</b>	Up to 6% with reduced capacity
<b>Load Type</b>	Application specific: Tunnel/Pinned Platform Cart, Towing, Roller Conveyor, Chain Conveyor, Shuttle or Lift Deck
<b>Drive Configuration</b>	Single wheel steer/drive
<b>Steering Configuration</b>	Steered-wheel with fixed load wheels
<b>Drive Motor</b>	1.0 kw AC motor
<b>Drive Wheel</b>	8.25" (210mm) 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>	1400 lbs. empty
<b>Speed in Automatic</b>	200 fpm max. (61 mpm, 2.3 mph); 15 speed ranges, reduced speeds in required areas
<b>Turning Radius</b>	3' minimum (approximates pivot about inside rear wheel)

### Controls Specifications

<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>	Via Radio Frequency (RF)
<b>Routing and Traffic</b>	"Smart" vehicle control logic
<b>Battery System</b>	Maintenance-free, TPPL battery with discharge sensor
<b>Nominal Positioning Accuracy</b>	± 1" (25.4mm) longitudinal, ± 1" (25.4mm) latitudinal Tighter tolerances - optional
<b>Battery Information:</b>	
<b>Battery AH</b>	Two (2) 12V, 137 amp-hour sealed (maintenance free) TPPL..
<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.



**NOTE:** SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE BASED ON PRODUCT IMPROVEMENTS OR TECHNICAL REQUIREMENTS.

FORM: 1214DC20Lr1