



616.791.8540
www.agvsystems.com

Model DC-60 Automatic Guided Vehicle

- **6,000 Pounds Standard Capacity**
- **Virtual Path™ Navigation System**
- **Bi-directional Guidance**

Savant Automation's DC-60 Automatic Guided Vehicle is a compact unit load transporter. The new generation design incorporates the latest technologies and features that customers have indicated are important for automated material handling systems. A deck can be configured with various transfer mechanisms to adapt to most any application, including unit load roller conveyor, chain conveyor, extractor mechanism, parasitic drive, and powered lift/lower deck.

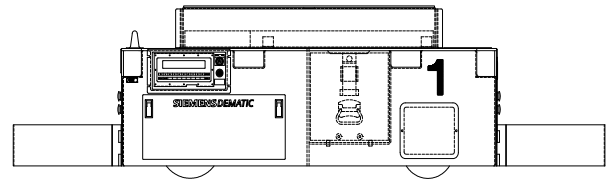
The DC-60 can be applied in virtually any industry application. A DC-60 can be used for material movement between work cells, from palletizer to stretch wrap, from packaging to shipping, from receiving to storage, and as a material transfer device at the front end of an automated storage system. It can transport racks, pallets, roll stock, slip sheets, totes, and Gaylord containers. This highly maneuverable AGV can safely travel in high traffic areas and in narrow causeways.

The DC-60 is available with the state of the art Savant Automation Virtual Path™ navigation using an onboard gyroscope to determine AGV headings and positional information. The onboard vehicle computer controls navigation, communication, drive control and safety systems.

The DC-60 is also available with Savant Automation's revolutionary Q-CAN™ system controls. Q-CAN (Quick Configurable Automation) utilizes a standard program that permits quick, easy system design, and allows users to make changes to their own AGV systems.

Standard Features

- Fully automated, bi-directional operation
- Automatic load/unload transfer deck
- Onboard routing and traffic control logic
- Automatically returns to battery charge area upon sensing a low battery condition.
- Onboard diagnostic mode for fast, easy troubleshooting
- Controls are mounted to allow easy accessibility
- Remove/Enter on path anywhere without resetting system controls.
- Pendant control for off-path manual operation.



- Rugged steel frame construction for industrial environments
- 100% gear driven transmission (no belts)
- Front and rear load wheels are independently steered for maximum turning performance
- Fork pockets for forklift transporting of AGV

Display/Control Panel Features

- Touch sensitive keypad with sealed keys
- Easy to read, durable, 40 characters by 2 line display
- Status, prompts and error messages displayed
- Operators are prompted for input, decreasing operator interface time
- Displays AGV's current status (on path/off path, low battery, etc.)
- Invalid entry notification eliminates input errors
- Easy to customize for special applications
- Over 100 English text display messages

Warning and Safety Devices

- Front and rear (for bi-directional AGVs) polycarbonate plastic bumper
- Emergency stop buttons
- Normal stop buttons
- Audio beeper while AGV is in motion
- Start signaling horn
- Flashing warning lights while in motion

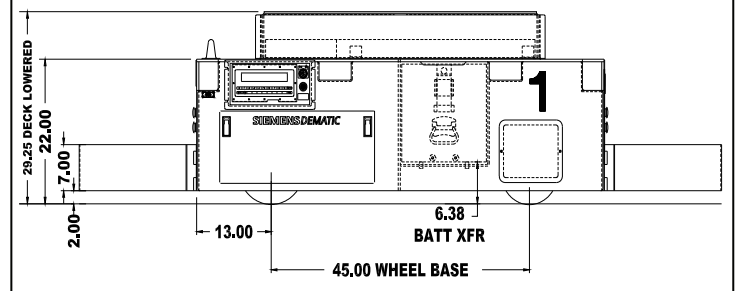
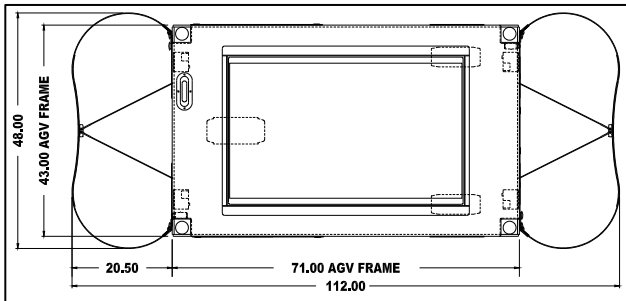
Options

- Q-CAN™ System Controls
- Q-CAN™ Designer PC Program
- Remote vehicle management and dispatching
- Automatic charging
- Turn signals
- Programmable laser scanning safety bumper
- Ramp capability
- Uni-directional guidance
- Custom load handling deck configurations
- Dual range object detection



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Mechanical Specifications

Carrying Capacity: 6,000 lbs. (2,727 Kg) maximum on level grade

Load Deck: Application specific – Lift/Lower Deck or Conveyor - Chain, Roller, or Extractor

Lift Deck Height Lowered/Raised: 29.25" (743mm) / 35.25 (895mm), 6" (153mm) nominal lift height

Roller Deck Height (top-of-roller): 26.50" (673mm) with 1.9" (48mm) diameter roller

Drive Configuration: Single Wheel Drive with two rear casters

Steering Configuration: 3-wheel steer with front and rear independently controlled. Limited crab-steering.

Drive Motor: 2 KW permanent magnet motor

Drive Wheel: 10.6" (270mm) diameter x 3.5" (90mm) wide Vulcolan

Caster Wheels: 10" (254mm) diameter x 4" (102mm) wide Polyurethane, press on replacement

Frame: 3/8" Unitized structural steel

Brakes: Electric, fail-safe

Battery Compartment: 39.00" (991mm) L x 15.25" (387mm) W x 15.25"H with roller conveyor access, 6.38" (162mm) top-of-roller

Manual Operation: Pendant control

Approx. Weight: 3,500 lbs. (1,591 Kg) with battery

Speed in Automatic: 200 fpm max. (61mpm, 2.3 MPH); 16 speed ranges, reduced speeds in required areas

Turning Radius: 4' (1.219m) minimum

Control Specifications

Controls: Microprocessor, CAN bus

Electrical System: 48-volt power

Navigation System: "Virtual" wireless navigation (inertial guidance)

Communications: Via Radio Frequency (RF)

Routing and Traffic: Onboard "smart" vehicle control logic

Battery System: Heavy-duty industrial grade battery with discharge sensor

Positioning Accuracy: $\pm 1"$ (25.4mm) longitudinal, $\pm 1"$ (25.4mm) latitudinal in stands

Battery Information

Battery AH: 48V, 180 amp-hour flooded cell, 200 amp-hour sealed (maintenance free)

Battery Weight: Flooded -1,000 lbs. (455 Kg); Sealed - 1,055 lbs. (480 Kg)

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: Manual battery exchange standard (or optional automatic charging).

NOTE Specifications are subject to change without notice based on product improvements or technical requirements.