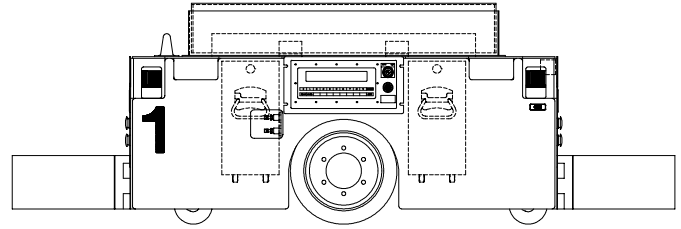


**Materials Handling Products**

- **3,000 Pounds Standard Capacity**
- **Virtual Path™ Navigation System**
- **Differential Drive and Steering**
- **Bi-directional Guidance**



Siemens Dematic's DC-40 Automatic Guided Vehicle is a compact, low profile unit load transporter. A low profile 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-40 can be applied in virtually any industry application. A DC-40 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, in narrow causeways, and easily interface with automated systems requiring low level transfer.

The DC-40 is available with the state of the art Siemens Dematic Virtual Path™ Guidance using an onboard gyroscope to determine AGV headings and positional information. The onboard computer controls navigation, communication, drive control and safety systems.

The DC-40 is also available with Siemens Dematic'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 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 mounted in a drawer for 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)
- Dual wheel, mid-position drives for maximum operational flexibility and maneuverability
- Compact controls, power train and battery packaged under the load deck
- Fork pockets for forklift transporting of AGV

**Display/Control Panel Features**

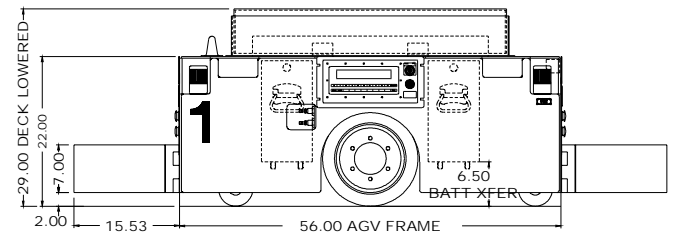
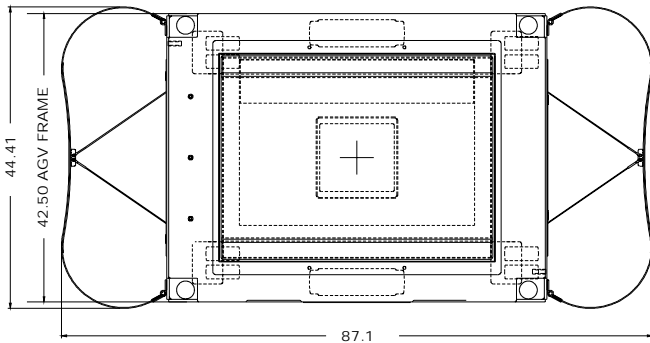
- Touch sensitive keypad with sealed keys
- Easy to read, durable, 40 characters by 2 line display
- Status, prompts and error messages displayed
- Operators are prompted for input, decreasing operator interface time
- Displays AGV's current status (on path/off path, low battery, etc.)
- Invalid entry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



## Mechanical Specifications

**Carrying Capacity:** 3,000 lbs. (1,364 Kg) maximum on level grade

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

**Lift Deck Height Lowered/Raised:** 29.00" (737mm) / 35.00 (889mm), 6" (153mm) nominal lift height

**Roller Deck Height (top-of-roller):** 27.00" (686mm) with 2.5" (64mm) diameter roller

**Drive Configuration:** Dual wheel drive with swivel casters at each corners of vehicle

**Steering Configuration:** Bi-directional, two-wheel differential steering

**Drive Motor:** Two (2) 1.3 HP permanent magnet motors

**Drive Wheels:** 14" (356mm) diameter x 4" (102mm) wide Polyurethane

**Frame:** 3/8" Unitized structural steel

**Brakes:** Electric, fail-safe

**Battery Compartments:** Each compartment: 39.00" (991mm) L x 8.00" (203mm) W x 15.25"H with roller conveyor access, 6.50" (165mm) top-of-roller

**Manual Operation:** Pendant control

**Approx. Weight:** 3,000 lbs. (1,364 Kg) with battery

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

**Turning Radius:** 3' (.762m) nominal, spin turn where necessary

## Control Specifications

**Controls:** Microprocessor, CAN bus

**Electrical System:** 48-volt power, two (2) 24-volt batteries connected in series

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

**Communications:** Via Radio Frequency (RF)

**Routing & 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 -860 lbs. (391 Kg);  
Sealed - 860 lbs. (391 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)

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

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