Savant Automation’s DL-40 Automatic Guided Vehicle is a low profile unit load transporter. This design incorporates the latest technologies and features that customers have indicated are important for automated material handling systems. The load deck can be configured with various mechanisms to adapt to most any application, including unit load roller conveyor, chain conveyor, extractor mechanism, parasitic drive, and powered lift/lower deck.

The DL-40 can be applied in virtually any industry application. A DL-40 can be used for material movement between work cells, from palletizing to stretch wrapping, 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, crates, totes, and bulk hoppers or containers. This AGV can safely travel in high traffic areas, in narrow causeways, and easily interface with automated systems requiring transfer heights as low as 15 inches from the floor.

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

The DL-40 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.
Mechanical Specifications

**Carrying Capacity:** 4,000 lbs. (1,818 Kg) rolling load (Carrying capacity on level grade with 2% coefficient of friction trailers)

**Ramp:** Up to 2% without de-rating capacity (ramps exceeding 3% require special evaluation)

**Drive Configuration:** Motor, transmission, drive wheel in vertical column

**Drive Motor:** 3 KW, 2.5 HP, series wound

**Steer Configuration:** Single front wheel steer

**Drive Wheel:** 10" (260mm) diameter x 4" (102mm) wide rubber

**Load Wheels:** 6" (152mm) diameter x 2.25" (57mm) wide polyurethane

**Brakes:** Electric, fail-safe

**Frame:** 3/8" laser cut steel plate

**Battery Compartment:** 31.5" (800mm) L x 13.75" (349mm) W x 27.75" (705mm) H with roller conveyor access, 6.75" (171.5mm) top-of-roller

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

**Speed in Automatic:** 200 fpm (61mpm, 2.3 mph), 16 speed ranges

**Manual Operation:** Operator onboard compartment with joystick control, electric steering and braking

**Keyswitch:** Automatic, Manual, Off

**Turning Radius:** 6 feet (1.829m) minimum at rated load

Control Specifications

**Controls:** Single board computer, CAN bus

**Electrical System:** 24-volt power

**Navigation System:** Virtual wireless navigation (inertial) or wire-based guidance

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

**Routing & Traffic:** Onboard control logic

**Battery System:** Heavy-duty industrial grade battery with discharge meter

**Position Accuracy:** ±1” " (25.4mm) stopping, ±1” " (25.4mm) side to side

Battery Information

**Battery AH:** 600 AH (maximum) flooded cell, 630 AH sealed (maintenance free)

**Battery Weight:** Flooded - 1,225 lbs. (557 Kg) Sealed – 1,250 lbs. (568 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.