Creform automated kitting cart delivery system helps an auto assembly operation run smoothly.

AGV works well moving kitting carts from the supermarket storage area to the main line.

Greer, SC—Creform has designed and built the model HA-A50060 AGV with kitting cart to an automotive assembly plant operation. The model is single direction with 90° and 180° spin/turn capability and allows moving kitting carts from the supermarket storage area to the main line. The cart sequences with the line for single piece flow and provides great flexibility for movement along its peel and stick magnetic tape guideway. It can travel at speeds up to 50 M/min. and has an estimated towing capacity of 1,320 lb. (600 kg).

The unit is part of a seven-vehicle system for the assembler. The single direction AGV basically travels in a loop with two stops. At the unload station, the associate will transfer carts manually from the AGV onto the deck. Once the kitting cart is removed, the AGV performs a single 90° spin turn on its restart. A powered mechanical gate dropdown for load transfers with line side decking. This simple but effective mechanism ensure loads are held securely aboard the AGV during travel. Loads will manually transfer on/off one side of the AGV.

The wi-fi enabled, and custom designed and strong and durable steel AGV frame, provides for a 50-course programming capability using HMI screen located at one end of the AGV. This unit includes I/O monitoring, course programming, error messages and error log. It reads floor mounted RFID tags for position feedback as well as command tapes adjacent to the magnetic tape guideway.

The 24-volt system is powered by two 12 V batteries. The unit is equipped with wireless touch charging and is built to run for two 8-hour shifts per day. A manual engage/disengage foot lever allows the cart to be moved easily if taken offline. Once

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Creform automated kitting cart…2 with photo and caption.
*Embedded photo is for reference only. Hi-res photo is attached as separate file.*

disengaged, the unit works like a typical pushcart. It is easily and quickly installed. And the route can easily be changed or repaired.

The unit meets safety CAT3 requirements, comes with 16-view laser scanners for obstacle detection, flashing lights, E-stops and an audible warning. It features complete safety equipment for safety category 3, with E-stop buttons at each end of the AGV. Multi-color LED lights are built into the frame to indicate the various running conditions.

The AGV carries a kitting cart that measures 30"x 24" and is designed to hold up to 300 lb. (136 kg) capacity. It provides production associates the ability to get exactly what they need and no more. The color of the pictured cart shown is high visibility “bright orange” but a wide variety of pipe color options are available. Accessories include hooks, label holders for shelf levels or even shelf positions, pockets for paperwork, writing surface with clip boards just to name a few. Creform carts are available as a kit, assembled structure or in component form for a complete DIY solution.

Creform offers preventive maintenance agreements to ensure long term performance and reliability. The company also offers training for plant maintenance personnel and ensures that the necessary on-site, immediate support is available if needed.

The Creform System is used to create an array of material handling and efficiency enhancing devices and is a proven component in continuous improvement and lean manufacturing programs. The company partners with customers in developing and enhancing these programs.

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Online at creform.com for additional information regarding Creform Corporation and its products.

CRE-679 caption: Creform AGV model HA-A50060 with kitting cart.