## **NEWS from:**



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New Product Information—For Immediate Release

## Moving big cylinders: No problem with newly designed Creform AGV.

A customer challenged Creform to develop a solution to handle the transport of its pressurized fuel cylinders during manufacturing

*Greer*, *SC*–Creform Corporation engineers have designed and built a custom AGV to handle the transport of large pressure fuel cylinders during manufacturing. The design not only challenged Creform's AGV building capabilities but also its mechanical design ingenuity. The company met the challenge and built a one-vehicle, bi-directional AGV that would be used to move the cylinders between five assembly and two finishing stations.

Creform designed and built the AGV on a custom frame that measured 8.2 ft. long x 3.28 ft. wide (2.5M x 1M). The company also designed the system controls as well.

The AGV features a custom designed cradle, lined with plastic to avoid damage, to hold and position the cylinder. The cradle features a locking pin that rises automatically to guarantee the cradles position during transport. It features electrically-powered 100° rotation travel with three stop positions...one to load, one to transport and one to unload. Loading is operator initiated and route-directed with the use of an HMI screen all intended to ensure safe handling, while the unloading is automatic. The AGV was purposefully designed to replace a manual cart and to enhance production efficiencies of automation and safe handling for both the product and the associate handling.

The FH-C25100, Bi-directional AGV, designed and fabricated with a steel frame for strength and durability, comes equipped with a Creform bolt-on drive unit. Each end of the AGV follows a peel and stick magnetic tape guidepath to ensure accurate and repeatable tracking. This is particularly useful for space restrictive areas and to

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## **Moving big cylinders...2**/ with photo and caption *Embedded photo is for reference only. Hi-res photo is attached as separate file.*

ensure repeatable alignment for the consistent transfer of loads. The guidepath is easily and quickly installed and allows for easy path change or when a repair is needed. The unit is able to travel at speeds up to 82 fpm (25M) and has a load capacity of 2200 lb. (1000kg).

The 24-volt AGV is powered by two 12V, 160AH, AGM batteries. The unit contains side mounted opportunity-charging shoes that help to automatically maintain battery level. There is no need to cut into the floor for charging plates and the shoes are less expensive to install and more flexible if there is a need to reposition. The AGV has a powered engage/disengage to raise/lower drive wheels. When the drive wheels are elevated, AGV can be easily repositioned by an associate.

For this customer, the AGV follows an approximate 100 ft. guide path. The main path is a straight line but can travel laterally, in places, to position for transfer.

The unit features complete safety equipment for safety category 3. The safety equipment includes: Laser obstacle scanners front and rear with 16 settable zones; E-stop buttons at each end of the AGV; safety light and audible warning. It features cylinder position photo eyes for cradle control and to detect an unexpected load shift during transport.

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 implementing these programs.

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Caption CRE-604: Creform designed and built this AGV to handle large cylinders.