

MAGNETEK ENGINEERED SYSTEMS

Vacall Industries CAN-bus Control Adjustment Project



Project — Vacall Industries CAN-bus Control Adjustment Project

Application — Industrial Cleanup Wireless Control Systems

Location — New Philadelphia, Ohio

Products Used

- Flex Pro™ Wireless Control
- Enrange™ CAN-6 Wireless Receiver

CHALLENGE

- Adjust products to CAN-bus based control systems with new transmitters and receivers
- Reduce excess equipment and streamline machine operations
- Improve operation safety and functionality with handheld controls
- Eliminate reliance on external vendors for changes in control parameters

SOLUTION

- Magnetek replaced a handheld pushbutton system with CAN-bus compatible radio controls
- Increased functionality, efficiency and ease of operation for machine users
- Incorporated proportional control in new machine systems
- Enhanced ability of operators to make internal changes independently

The Vacall division of Gradall Industries, Inc. provides superior jetting and vacuum solutions for various applications including small, local maintenance such as street sweeping, and large-scale cleanup efforts like the ones in progress along the New Jersey shoreline in response to Hurricane Sandy. Seeking to transfer the majority of their products to CAN-bus based controls, Vacall was unable to find an appropriate solution with their existing transmitters and implemented a product-wide replacement of wireless transmitters and receivers.

Sweepers, catch basin and sewer cleaners, excavators and vacuum loaders offer unique approaches to help contractors and municipalities save on repair costs and maintenance time. In the case of Hurricane Sandy cleanup, Vacall's AllJetVac was effectively used to clear sewers of debris with a high-powered water jet and the AllVac removed significant sand buildup from homes and businesses.

The AllExcavate, a hydro-excavator that removes materials around water lines, sewer lines and other underground utilities, was one of the products that benefited from the new radio remote control installation. A Flex Pro handheld transmitter, paired with a CAN-6 receiver, manages the movements of a debris tank's "high dump" function.



The 10 cubic yard tank can be raised 76 inches above ground level and shifted 21 inches horizontally, past the end of the truck bumper and over the edge of the receiving container. Wireless controls allow for greater functionality and smoother, safer tank movement. Improved dumping efficiency and a clearer view of the debris removal process saves time and enhances production, additionally reducing the risk of problematic spills.

ADVANTAGES OF USING MAGNETEK'S RADIO CONTROLS GROUP

- Experts in providing innovative, cost-effective, custom-engineered wireless communication products
- Meets application specifications to reduce internal engineering, improves time to market and enhances performance
- Manufactured and tested at our U.S. facility
- Customized application software designed at our Bridgeville, PA, facility
- Aftermarket service in our Ontario, Canada, and U.S. facilities

With the Flex Pro and CAN-6, Vacall has the ability to adjust their machine operations through internal programming, reducing the company's reliance on external operators for control parameter alterations. The proportional control on the 12-button Flex Pro, rather than on/off controls, provides operators with the ability to move machines gradually to their intended targets easier, safer and faster. Without proportional control, a larger bellybox transmitter would have been necessary, complicating operations and taking up extra space.

Both the Flex Pro and CAN-6 are compact and rugged enough to withstand harsh environments, making them ideal for potentially hazardous industrial or environmental cleanup sites. The addition of CAN-bus compatible wireless controls enhanced product performance, time of operation and safety of operators during machine processes. Proportional control on the new transmitters smoothed overall excavator, sweeper and vacuum movements, reducing the risk of problems during cleanup procedures.

