



According to the CDC, one in six Americans gets sick annually from contaminated food or beverages, and 3,000 die from foodborne illness. The resulting cost for the U.S. Department of Agriculture (USDA) is an outstanding \$15.6 billion each year. Given this data, there is no question that cleaning and sanitization, food safety compliance, and accurate chemical detergent delivery are more critical than ever in the fight to prevent the spread of harmful pathogens. An important process within the food safety process, that is less frequently discussed, is warewashing. In the most basic sense, warewashing is the process of cleaning the wares used in the preparation or service of food.

In today's world, these systems for cleaning and regulating the process are frequently outdated, and even companies with the best intentions get caught when utilizing even expensive systems that lack tracking data to accurately record processes. In 2018 Hydro, a key brand within Dover's Pump Solutions Group (PSG), a global leader in chemical dilution, set forth to change the landscape for restaurants and food services companies worldwide within the automatic warewash dispensing market. The goal was to create a connected warewash dispenser that replaced legacy products while drastically improving service costs, usability, reliability, and food safety compliance - all through using sensors and a mobile application.

Hydro's legacy product-line in this space was at the end of its life cycle and, in the wake of the COVID-19 pandemic, there was an increased demand for a modern solution to further prevent the spread of harmful pathogens. Traditionally Hydro had handled product developments internally. However, in this case, collaboration would lower costs, shorten time-to-market, and create a higher quality solution. For these reasons, PSG partnered with MultiTech on the Electrical Board Design, and Mobile App Development, while internally tackling the other aspects of the hardware and software.

The scope of the development was challenging and involved aspects of mechanical and industrial design, the development of new electrical boards utilizing Bluetooth and firmware, a mobile application, and software as part of the Hydro Connect cloud. A critical component of the solution is Hydro Connect,

Problem

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Solution

Hydro DMx

DMx Warewash Dispenser

A new warewash dispenser, Hydro DMx, that delivers on the goals of ease of use, enhanced reliability, and improved visibility of critical site data over the legacy product. The DMx is a smart, versatile warewash dispenser, designed to dispense solid or liquid detergents and rinse aids accurately and reliably in commercial kitchens.

Benefits

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a cloud-based Internet of Things (IoT) platform that gives chemical providers and end users increased visibility into their operations, optimizes production, reduces costs, and increases customer satisfaction.

"In the case of the new warewash solution – collaboration was paramount," said John Goetz at PSG-Cincinnati. "MultiTech has always been honest and fair in their dealings and is seen as an extension of the development team. They also bring a balance of technical advancement with valuable practicality. The result has been a cost-effective solution that also offers many industry firsts to create value for our customers," said Goetz."

The result of the collaboration is a cutting-edge warewash dispenser Hydro DMx that delivers on the goals of ease of use, enhanced reliability, and improved visibility of critical site data over the legacy product. The DMx is a smart, versatile warewash dispenser, designed to dispense solid or liquid detergents and rinse aids accurately and reliably in commercial kitchens. It works anywhere in the world on most high or low-temperature doors, conveyers, and flight-style machines with numerous optional upgrades to enhance its functionality. The DMx is compatible with Hydro Connect (Hydro's IoT platform) and features intuitive configuration and comprehensive reporting through the Hydro Connect Mobile Application.

"This new solution is a game changer for chemical companies that want to better service their customers and provide more value," said Goetz. "Hydro's technology provides users with options to customize, the confirmation that they are on track, and the peace of mind in knowing that their system meets expected safety requirements. PSG understands the dosing process and incorporates the best possible sensors to ensure there are no risks of overdose or imbalance."

Users can access the Hydro Connect App. from anywhere in the world. Once an account is created with Hydro, chemical companies can create accounts for all their users. Every chemical company has the option to tailor their reporting to the needs of their users allowing every restaurant or facility using it to develop their gold standard.

Looking toward the future, PSG is already hypothesizing on the next generation of features that could be incorporated to increase value for the customer including additional languages, real-time streaming of critical operational data back to the cloud without making site visits, and even adding different pumping technologies to further reduce maintenance.



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> John Goetz Global Product Manager Hydro Systems Company (Dover's Pump Solutions Group)

