



## Enpro Inc. Improves Quality Oversight of High-Speed Carbonated Beverage Filling with HID Global

Founded in 1961, Enpro Inc. is an Illinois company that provides patented state-of-the-art traceable components and systems to reduce waste and downtime associated with the filling process in the food and beverage industry. Enpro Inc. products enable some of the world's largest manufacturers to reliably and accurately detect malfunctions.

### CHALLENGE

Today's beverage companies rely on automated, high-speed filling lines that operate as a non-stop process flow, producing upwards of 2,500 items per minute per line. The slightest problem on these automated lines—such as a missing vent tube—can have a major operational impact. As part of the manufacturing process, vent tubes are used to fill cans and bottles and vent out the carbonation-related gas. Occasionally, due to wear and tear, these vent tubes can fall off and into the cans and bottles, creating safety and quality issues.

Enpro Inc. customers needed a way to reliably detect the presence or absence of a vent tube, eliminating the potential for halting the line—as workers manually check for vent tube problems. Notably, if a vent tube is lost or damaged during the filling process, it becomes a safety and quality issue for a beverage manufacturer and large amounts of finished packaged product has to be thrown away as the missing vent tube is very costly to locate.

## SOLUTION

To address the problem, Enpro Inc. partnered with the largest beverage manufacturers, as well as HID Global, and FEIG Electronics to build a Filler Vent Tube Reader (FVTR) for monitoring vent tube fillers. A robust HF RFID-powered non-contact monitoring solution was identified. A high-frequency reader was also required to support that RFID system.

The newly designed FVTR was built with a custom designed and molded SLIX2 HF Ring Tag from HID Global, which is injection molded into the vent tube. FEIG Electronics provided its LRM2500 High Frequency Reader coupled with custom developed Enpro electronics.

The combined effort ultimately yielded the world's fastest HF Reading application. High Frequency (HF) RFID operates at 13.56 MHz and is capable of reading anywhere from 30-800 tags per second depending on the air protocol and implementation by the silicon manufacturer.

## RESULT

Enpro Inc. manufacturing customers are now benefitting from the efficiencies and accuracy of a vent tube detection system. This newly designed system reads 120 or 165 patented traceable vent tubes in real time and displays them for the filler operator, significantly improving workflow efficiency and quality control.

Customers have achieved reduced down time, as well as increased the safety and reliability of their production process. For Enpro Inc., the new system has driven significant growth of sales and revenue, as well as stronger partnerships with the largest beverage manufactures in the world.

"The partnership between HID Global, Enpro Inc. and FEIG Electronics shows what is possible when forward-thinking companies bring advanced technology together and innovate," said Grant Cook, VP at Enpro Inc. "We are pleased to offer this new solution that will significantly reduce customer risk, increase production output and reduce product waste."



## SOLUTIONS

- HID Global – Custom designed and molded SLIX2 HF Ring Tag
- FEIG Electronics – LRM2500 High Frequency Reader – coupled with the custom developed Enpro electronics

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