Savings to Toast: G. H. MUMM Tracks Nearly 25 Million Bottles and Filters 100% of the Defects with an RFID Solution from Intermec by Honeywell

MUMM is a prestigious champagne producer. A subsidiary of Pernod Ricard, MUMM is a global leader in the wines and spirits industry.

Since it was founded in 1827, G.H.MUMM has lived by the motto “Only the Best.” From the grape-picker to the Cellar Master, thousands of actions associated with champagne-making are carried out with the utmost care each day. Today, the company runs one of France’s leading vineyards, covering 218 hectares (538 acres), which provides them with approximately 25% of their grape requirements. The remaining 75% come from high-quality independent growers who have supplied MUMM for many years and meet their stringently high standards.

This combination of its own vineyards and external supply enables the House of G.H. Mumm to maintain a consistent style and continue its close scrutiny over grape quality.
The Traceability Challenge
Due to their need to ensure the highest quality throughout the production process, traceability is a key issue for MUMM. Pernod Ricard had introduced a solution to trace Martel Cognac in 2003 working with Intermec by Honeywell Platinum Partner Acteos. So, in 2008, MUMM started to work with Acteos to address their own batch traceability requirements. The production of champagne involves numerous stages, and the company wanted to ensure complete traceability of crates throughout this development process.

The bottles of champagne are stored in batches of up to 500 in wire crates within the 25 kilometres of galleries that comprise the MUMM cellars in the heart of Reims. These cellars today house nearly 25 million bottles of champagne. These bottles need to be stored for about three years while the bubble formation and aging process takes place, before entering the riddling and disgorgement stages, where sediment is isolated and removed. To ensure the traceability of these crates MUMM needs to manage every production stage carefully, as well as the stocks associated with each of these stages.

The challenge is that there could be a change in batch number during an intermediate stage. The aging stage can be longer or shorter depending on the bottles, for example, and it was necessary to implement a solution that allows the operators to know exactly what each crate is composed of.

Turning To RFID
MUMM turned to Intermec by Honeywell and Acteos to provide a turnkey RFID solution. Together Intermec by Honeywell and Acteos offered MUMM an unrivalled suite of RFID products and services.

The solution implemented consists of Intermec by Honeywell IP30 handheld readers, along with IF2 fixed readers, rewritable RFID Tags and the Logidrive solution from Acteos. This scalable and versatile solution has now made it possible for MUMM to manage the traceability of wire crates between the two final stages of champagne production – Disgorging and Labelling.

Managing the Climate
The humid conditions of the MUMM cellars, and the metal of the wine crates themselves, presented a challenge that some RFID solutions can be ill-suited to deal with. It was essential to implement a solution that would allow radio frequency waves to travel through the metal of the crates and also to withstand the very specific climatic conditions of the cellars. Intermec by Honeywell and Acteos delivered the ideal solution by implementing ruggedized tags with encapsulation to make them moisture resistant and deliver the benefits of RFID traceability without the fear of tag deterioration.

Creating Total Visibility
All wire crates containing the bottles of MUMM champagne were equipped with Intermec by Honeywell RFID tags. Once a crate has been filled, it is then passed in front of an Intermec by Honeywell RFID portal which reads the information contained in the tag. This information corresponds to the identification number of the crate, and the crate keeps the same number throughout the production process. At each stage, readers located on the automated production and conveying process chain capture data and enter it into a traceability management system. This system therefore allows for an association to be made between the crate number and the contents of the crate; typically information relating to the bottles themselves and their numbers.

Monitoring Stock and Saving Time
The crate traceability deployed also makes it very easy to pinpoint defective batches which can be easily identified to prevent them from returning to the production chain. 100% of defective batches are now detected.

The fact that the contents of the crate can be associated with the crate itself also makes it possible to secure the
batches. Now, if an operator makes a routing error for one or more crates, tag reading automatically detects the error and alerts the supply chain management system reducing variance to less than 5%.

The system also helps optimise batch number management during preparation of customer orders. MUMM can now automatically manage stock movements in its ERP (Enterprise Resource Planning) using the Acteos Logidrive solution.

Whenever a crate is moved within the cellar, a wire crate passes beneath a portal or bottle transfer takes place, the ERP is immediately informed. Automating this task frees up time for the production workshop manager, avoids mistakes and significantly reduces the workload of the operators. In addition, it has led to a 12.5% reduction per year in time spent on administrative tasks by Mumm’s operational managers. In the future, MUMM wants to use the same solution to enable crate traceability between the transfer and disgorgement stages, part of Champagne process.

“Now that the Intermec [by Honeywell] solution has been adopted by the whole team, it is proving a huge added value, saving management time and reducing the administrative load,” said Johan Jarry, Bottling, Cellars & Disgorgement Manager at G.H.MUMM.