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Frozen-Food Distributor Tests RFID

Of the many manufacturers facing demands from Wal-Mart, the Department of Defense and a range of others to meet RFID tagging mandates on their shipments, some food suppliers are facing an especially tough situation.



Patrick
Hughes

“There is so much moisture in meat, frozen or not, and RFID hates moisture,” says Pat Hughes, director of operations at Richmond Cold Storage Co., which is based in Richmond, Va.

RCS specializes in the storage and distribution of food, and along with a number of its food-manufacturing customers, RCS is testing the tagging of poultry and pork products, as well as ice cream and other frozen food. Because it also repackages many of its customers’ products, RCS is looking into providing RFID services to food manufacturers that need to comply with RFID mandates from Wal-Mart and other organizations. “Some manufacturers have approached us to outsource their RFID tagging because they don’t have room or don’t want the complexity of adding another process to their manufacturing line,” says Hughes.

However, RCS needs to overcome the challenges of tagging food items. Because of their high water content, many fresh and frozen foods absorb electromagnetic radiation at UHF frequencies (868 to 956 MHz), preventing RFID readers from being able to read tags that have to transmit their UHF signals through the food to reach the reader. The company maintains that there are no tags and readers that can enable those reads.

“The biggest stumbling block is there is not a working solution available today, but we are putting in time and effort as well as sourcing with other RFID players to ensure

that our customers either will reduce their overall RFID costs or will actually reverse those costs and create ROI opportunities if they decide to deploy their own RFID tagging further out," says Hughes.

As part of that effort to find working solutions and win RFID tagging business for itself, RCS has established its own RFID center to provide RFID testing services for a range of food products. The company admits, however, that limitations in current RFID UHF technology have so far meant mixed performance. "We can get 100 percent read rates on loaded pallets, but those pallets have to be loaded so that all the tags are outward facing. There is just no way to get a reading on a tag buried in the middle of the pallet," says Hughes.

Loading pallets so that all tags face outward, however, means cutting the number of cartons on a pallet, sometimes by more than half, says Hughes. But even making sure that all the tags are face outward is not always enough to ensure 100 percent reads. RCS says that manufacturers have to redesign the packaging of their products to improve the ability to get reads for products that create a particularly harsh environment for RFID to operate in. One RCS customer has already redesigned the inside of the carton its products are packed in to improve the readability of the carton's RFID tag.

RCS opened its test center last month at its headquarters as part of a joint project between RCS and RFID software specialist CapTech Ventures, which provides its TagsWare Software Solution to manage readers from more than eight manufacturers in the RCS's test center.

The 97,000-square-foot center includes a shipping bay and RFID portal, smart shelving as well as a conveyor and a forklift equipped with RFID readers. "By making an appointment and coming in to the center, customers test which RFID technology best suits their products and how best to deploy that technology," says Hughes. RCS also says it has developed a

mobile RFID tagging capability that lets the company come to its customers' manufacturing facilities to tag shipments before they leave the plant.

The cost of any of RCS's testing, compliance and other services is dependent on the details and complexity of the project, says RCS.

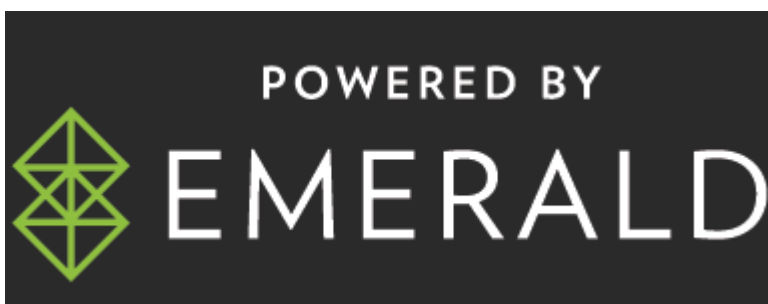
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