

CASE STUDY



A00120B

Exceeding Expectations

Metalcraft RFID labels prove more than up to the challenge in distribution center

An industry leader in pallets, waste and recycling containers and supply chain solutions, helps thousands of customers worldwide streamline their supply chain systems. In order to meet the needs of their large and diverse customer base, they needed an identification (ID) product partner they can count on.

They reached out and started working with Metalcraft, a manufacturer of customized bar code labels and radio frequency identification (RFID) tags, nearly ten years ago for bar code and/or RFID products with many of their customers.

Recently one installation caught the Solution Architect's attention. As he was swapping out some product he came upon pallets with Metalcraft RFID tags that he concluded were at least six years old because of their early tag value sequence.

"When I started checking some of the labels, I was surprised to see the adhesive remaining intact and the tags reading as if they were brand new," he commented to Metalcraft. Many of these labels were on pallets that have been in active circulation since 2015. He noted that often the pallets themselves don't last that long in a typical distribution center environment let alone the labels.

Distribution centers can be hot and dirty with temperatures ranging from 70°F to 120°F with both forklifts and pallet jacks abusing the pallets on a regular basis. Given these conditions, the Solution Architect was impressed with what he found. "I was amazed to see these pallets and tags still in operation and still being very active with a 20 ft plus read range."

The application described herein involves a plastic pallet. Drivers bring pallets back and forth from convenience stores to restock shelves, aka "milk runs." The pallet and contents on it are first tied together at the distribution centers where the tag is read and then to both the pallet as well as in the software on the backend. This is known as load verification – ensuring the right items are loaded onto the right pallets and ultimately sent to the right location.

Automating the quality assurance (QA) process on load verification helps minimize missed deliveries to convenience stores, a problem costing \$25-30 million annually nationwide.

While the application described above is worth noting, the customer goes on to say Metalcraft's support is a central part of their relationship. "They (Metalcraft) provide support internally by testing potential new adhesives, looking at potential new substrates and explaining the importance of the tag construction and its correlation to tag longevity." The Solution Architect also noted they have completely gone away from less durable wet inlays for this application because of the shift from hot and cold temperatures as well as the exposure to chemicals. "We can't have them shrink going through the wash process," he said.

Additionally, the importance of tag construction can be seen with onsite printable tags. For example, if things are not set up correctly – meaning the wrong adhesive used – tags will fall off the pallets or adhesive could gum up the printers for onsite printable RFID tags.

This leading manufacturer plans to continue working with Metalcraft – providing customers complete identification solutions so durable and reliable they may even continue surprising themselves!

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OPPORTUNITY

CHALLENGE

SOLUTION

RESULT



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