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## WARMKRAFT INCREASES ORDER ACCURACY, EFFICIENCY WITH ITEM-LEVEL RFID

### Defense Contractor Reduces Quality Control Manpower by 50 Percent

#### About Warmkraft, Inc.

Warmkraft, based in Taylorsville, Mississippi, manufactures specialty finish garments for the U.S. military. The company serves as a general contractor and subcontractor for Department of Defense (DoD) contracts.

#### Challenge

Each year, Warmkraft ships millions of uniforms to its government customers. Per DoD requirements, all apparel suppliers must tag garments at the item level, with all tags maintaining 100 percent readability at over 10 feet.

Additionally, for its own quality standards, the company needs to track every item that leaves its warehouse accurately and ensure that the right number and type of garments reach the right customers.

“We have a number of subcontractors where we run units that are identical in every way except for the contract and prime contract holder,” said Ron Lack, general manager at Warmkraft. “That created many problems with us trying to separate each customer’s units and account for those throughout the production process. We didn’t have a good procedure to do that.”

#### Solution

Warmkraft implemented an RFID solution from SimplyRFiD. The SimplyRFiD Nox for DoD asset tracking system and the Nox Vault portable RFID scanners allow the company to monitor every item as it moves through the supply chain.

When implementing the solution, Warmkraft turned to SimplyRFiD to recommend printers to meet the company’s high-volume needs.

“We really needed to find a solution that was going to work for that kind of volume—to actually make sure that everything that goes in that box is correct; all the labels that come out that go on the printers are correct,” said Carl Brown, president, SimplyRFiD.

To meet the company’s needs for high performance and efficiency, Warmkraft chose Zebra’s R110Xi4 RFID printer/encoder for creating clothing tags and case labels. With RFID inlays spaced closer together than other printers, the R110Xi4 provides a lower cost per label, fewer media-roll changes and faster throughput.

With the Zebra printers, the manufacturer prints tags for every single garment. On one side, the tag is human readable with a barcode, while the back holds the RFID chip.



### Zebra® R110Xi4™ RFID Printer/Encoder

#### Customer

Warmkraft, Inc.

#### Industry

Manufacturing

#### Challenge

Pack and ship garments accurately and meet government requirements for item-level RFID tagging.

#### Zebra Solutions

- Zebra R110Xi4 RFID printer/encoder
- Zebra 105SL™ label printer

#### Results

- Item-level shipping has been shown to reduce error rates from approximately 5 percent to 0.2 percent.
- Accurate orders improve customer relations.
- Printers stand up to the high-volume environment and keep working.
- Warmkraft reduced quality control labor needs by 50 percent.
- The company gets paid faster.

*Warmkraft, Inc.*



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Once Warmkraft employees tag items, they are packaged into cartons and sent through a high-speed production conveyer. The conveyer reads each individual tag in that carton, checking for the right item, the correct contract number, and the number of items in the box. The process and technology provide quality control that orders are accurate.

With boxes complete, Warmkraft employees place a tag on the outside. If a scan of the box indicates it was not packaged correctly, they use a Zebra 105SL label printer to add a regular label that says, "Exception" and correct it later.

"We're able to go back and correct that rerun and then basically give a 100 percent error free on that carton," Lack said.

With carton tags, those packages then move to the pallet wrap machine, where scanning again builds in quality control that the right cartons and items match order specifications.

"The computer reads all the carton labels and tells us what's on there and tells us if there's an error or not," said Bonnie Sacher, shipping manager, Warmkraft. "If not, it'll print a pallet number. We apply that to the pallet and wrap it, and then it's ready to ship when we get the rest of them wrapped."

All that information goes into the Nox system for Warmkraft's records. Additionally, it's uploaded to government customers so they have full knowledge of shipped orders. As soon as they receive the shipment, the customer also reads the RFID data and puts the order into its database for payment.

### Results

With the SimplyRFiD solution and Zebra printers, Warmkraft brings efficiency and accuracy to its entire supply chain process. The company meets government requirements and ensures that customers receive exactly what they ordered. In fact, item-level shipping has been shown to reduce error rates from approximately 5 percent to 0.2 percent.

"What every manufacturer has found so far is that, when they do it with item-level shipping, their counts are correct, their quantities are faster, they don't have to worry about mispacks, misships, and the last thing is that they get paid faster," Brown said.

Warmkraft receives payment faster because government customers scan tags on arrival, updating their systems about the order and triggering the customer to pay.

For their part, Zebra printers have proven to stand up to Warmkraft's demanding, high-volume environment. "We have run quite literally millions and millions of tags. We like Zebra's because they're very simple and rugged. It has been excellent all the way through—superior accuracy."

The resulting speed and accuracy enhance customer relations and drive a better bottom line for Warmkraft.

"We do see benefits financially from this," Lack said. "Before, we had numerous inspection points and quality control people in that area. Now we've probably been able to reduce that by 50 percent on the labor savings on those particular audits. It's a very efficient system."



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