ZEBRA

SUMMARY

Customer
Turkish textile manufacturer

FEDERAL SMART

Partner
FEDERAL SMART

Industry
Manufacturing

Challenge
The textile manufacturer wanted to accelerate stock put away, picking and shipments, increase accuracy in its warehouse operations and ensure stock traceability throughout its manufacturing plant

Solution
- Zebra FX9500 fixed 8 port RFID readers
- Zebra FX9500 fixed 4 port RFID readers
- Zebra MC3190-Z handheld RFID readers
- Zebra VC70 vehicle-mounted readers
- Zebra RFID AN480 antennas
- Zebra RZ400 industrial RFID printers
- AKDENIZ RFID Smart Warehouse Management Software from FEDERAL SMART

Results
- The textile manufacturer has achieved up to 95% time savings in warehouse operations such as palette-item-shelf assignment, picking and shipments
- Operational accuracy has improved by up to 95%
- Inventory counts can now be taken without pausing production and shipments
- Lost product ratio has decreased by 90%
- TCO has been reduced by the selection of multi-port RFID readers

Textile Manufacturer Deploys RFID For Increased Productivity, Accuracy And Traceability

ABOUT THE TURKISH TEXTILE MANUFACTURER

This company manufactures carpets, mattress ticking fabrics, high quality upholstery and curtain fabrics; its factory warehouses cover a staggering 90,000m^2.

Challenge

The textile manufacturer had previously used a warehouse management system based on barcode technology. This system was subject to inaccuracies and lacked the density of traceability desired. Stocktaking and product processing were time-consuming, especially given the complex and vast range of different raw materials and finished products passing through the manufacturing plant.

Moreover, with the rapid growth of the mattress ticking side of its business, the manufacturer needed to increase storage capacity – for both raw materials and finished goods – at its factory. It therefore introduced a new

14m high warehouse shelving system. This, however, made fast and accurate put away, picking and dispatch even more problematic. The manufacturer decided to investigate the possibilities offered by a RFID solution and approached Zebra Technologies' partner FEDERAL SMART. Representatives from the plant then visited other facilities in Turkey to see FEDERAL SMART`s successful RFID deployments first hand.

Solution

Following a brief testing phase, the manufacturer installed an RFID system comprising Zebra Technologies' fixed and handheld RFID readers and FEDERAL SMART's Akdeniz RFID software, at its mattress ticking facility in Kayseri.

Each item manufactured in the facility is tagged with an RFID label, shelves have an RFID tag, the metal pallets have RFID tags on both sides. As

items or pallets move through the warehouse, they are tracked using Zebra's fixed or handheld RFID readers. Each RFID reader located at Quality Control is managed by AKDENIZ RFID Middleware. AKDENIZ end to end Smart Warehouse Management Software comprises various modules including Smart Conveyor Belt, Smart Shrink Station, Smart Portal and Smart Finding. The Smart Forklift module was a key component when it came to the manufacturer's decision to work with FEDERAL SMART. This module automatically assigns items to shelves, working even when there is no real-time server communication.

The Akdeniz Smart Shipment Final Control module together with the high performance Zebra 3190-Z Handheld RFID Readers ensures 99.9% accuracy in shipments.

Akdeniz WMS works seamlessly with the manufacturer's existing ERP system via the integration module.

Results

The RFID system enables the manufacturer to accurately track movement of its components and finished goods as they pass through its facility delivering real-time track & trace visibility.

Historical data held on the Akdeniz database ensures complete traceability. The RFID readers are very high performance, robust and accurate, and warehouse managers know they can now fully trust the data in their ERP system. Moreover, by installing multi-port RFID readers the manufacturer has significantly reduced the number of readers needed and consequent Total Cost of Ownership.

The Akdeniz software applications are very user friendly and each one is specific to different areas in the warehouse and plant floor. Using the system, the manufacturer has achieved up to 95% time savings in its processes of stock put away, picking and shipments; teams can now work more efficiently and productively. And inventory counts can be conducted by a much smaller team, without the need to stop production or dispatches. Operational accuracy – for example in shipments – has improved by up to 99%. Missing or misplaced stock ratios have decreased by 90%, which has minimised financial loss and unnecessary over ordering.

The manufacturer has been so pleased with the results that it is currently installing the same RFID solution at its new warehouse in North West Turkey. And its carpet factory is next on the list. FEDERAL SMART hopes that other global textile manufacturers will also see and benefit from the advantages of deploying the AKDENIZ SMART WAREHOUSE MANAGEMENT SYSTEM, which works seamlessly with ZEBRA RFID products. This would ensure improved visibility and traceability in the manufacturing plant and right along the supply chain.

> "The Zebra Technologies fixed and handheld readers are the most reliable and efficient readers on the market. Combined with the Akdeniz software, the RFID solution has significantly improved efficiency and traceability at the plant, as well as increasing shipment accuracy to 99.9%."
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> **Erhan Ark, CEO, FEDERAL SMART**

FOR MORE INFORMATION, PLEASE VISIT: WWW.ZEBRA.COM/GB/EN/SOLUTIONS/ MANUFACTURING-SOLUTIONS/2020/TRACK-AND-TRACE.HTML

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