

SUCCESS STORY

İSTIKBAL MOBİLYA SANAYİ TİC.AŞ.



ZEBRA



Turkish Manufacturer Uses Zebra Technologies' RFID For Real-time Tracking At Its Bed Manufacturing Plant

İstikbal Mobilya Sanayi Tic.A.Ş.

İstikbal Mobilya Sanayi Tic.A.Ş. (İstikbal Furniture) was established in 1957. It is the largest furniture manufacturer in Turkey and exports its products to over 80 countries worldwide.

Working with leading Turkish RFID solution provider, Vendeka Intelligent Transportation and Technology Solutions, İstikbal Furniture has implemented a Zebra Technologies RFID solution at its bed manufacturing plant in Kayseri. The technology is used for quality control, to track incoming raw materials and outbound deliveries, and to trace mattresses along the assembly line.

Challenge

İstikbal Furniture had been using MC9090 Rugged Mobile Computers to track products through its manufacturing facility via 1D barcodes. However, it wanted to upgrade to an RFID solution to speed up processes, eliminate human error and allow traceability all the way to the end customer.

With the assistance of Vendeka, İstikbal Furniture conducted a detailed selection process, including the testing of various RFID solutions by end users. Impressed by the price/performance ratio, the well-known product range and the fast response from the technical and sales teams, İstikbal Furniture chose Zebra Technologies' RFID solution.

SUMMARY



Customer

İstikbal Mobilya Sanayi Tic.A.Ş., Kayseri, Turkey



Partner

Vendeka Intelligent Transportation and Technology Solutions

Industry

Manufacturing

Challenge

İstikbal Furniture needed a real-time accurate overview of stocks, mattresses in production, finished product and dispatches to customers, as well as correct quality control data

Solution

- 25 FX9500-8 Fixed RFID Readers
- 1 RZ400 RFID Printer

Results

- The RFID technology has increased production plant workforce productivity by up to 95%, significantly improved manufacturing planning, enhanced quality and stock control, achieved 100% accuracy in shipments and saved costs

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Solution

This is the first usage of the combination of Zebra Technologies' RFID, Biztalk, SAP ECC and Siemens PLC for production line control in Turkey. The system allows full traceability across all factory processes from goods receipt, manufacturing line, QC and warehouse management to dispatch. The data collected by the RFID readers uploads to a SAP ECC ERP system.

Vendeka installed 25 FX9500 Fixed RFID Readers in İstikbal Furniture's production plant, at the 2 warehouse gates, 4 assembly lines, 20 sewing lines, 4 QC points and 4 loading bays. Using the Biztalk and RFID infrastructure, İstikbal Furniture can control over 40 process locations with the 25 RFID readers, as each reader is an 8-port model so can control up to 8 different antennas.

Following the manufacturing process, a high percentage of the incoming raw materials – specifically from key supplier Boyteks™ – is labelled with RFID tags; so the materials can be scanned as they pass through the plant. Once a production plan has been released, the SAP ERP system transfers all the production data to Biztalk via IDoc. Biztalk handles IDocs, collects extra data from the SAP ERP via RFC calls and saves the related information to the SQL server. The production plant teams receive the work orders.

The RZ400 RFID printer is used to print large quantities of uniquely numbered Confidex Casey UHF RFID labels. Vendeka supplies a million of these labels to İstikbal Furniture every year. One label is applied to the first layer of each mattress at the initial manufacturing station. Via these RFID labels, each mattress is tracked along the production line until the manufacturing process is complete. İstikbal Furniture's system can process up to 400 reads per second and, on average, each mattress goes through 8 different manufacturing points in the factory, where the RFID label is scanned each time. The collected information is processed and, from this data, it is decided if a mattress can be released to QC, where it is tested against a number of client GUIs. If a mattress passes these final quality checks, the product is ready for dispatch to the customer.

As each mattress has a preconfigured RFID label within it, should a quality issue occur, İstikbal Furniture now has full traceability of the product from the production line to the end customer, to be able to ascertain where any problems have occurred. This has also introduced significant time savings for the after-sales team.

Vendeka continues to offer ongoing consultancy and development support to İstikbal Furniture with regards to its RFID deployment.

“With Zebra Technologies RFID, we now have a real-time accurate overview of mattress production. This helps us to deliver customer orders on time, manage stocks more effectively, save costs and drive supply chain efficiencies. We're so pleased with the results that we are going to implement Zebra Technologies' RFID in other parts of our business.”

Melih Sarica,
Head of IT,
İstikbal Mobilya
Sanayi Tic.A.Ş.

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Results

Zebra Technologies' RFID solution has delivered tangible benefits for İstikbal Furniture, including a 100% reduction in uncontrolled, repetitive manufacturing, a 50% decrease in workload for its QC teams and a 95% decrease in time spent on incoming raw materials. Goods dispatch is now also 40% quicker, which means İstikbal Furniture has been able to decrease dock door usage from six doors to three doors. It regularly achieves 100% accuracy in product shipments.

Staff at the factory can now work more productively and accurately. Feedback has been extremely positive. Accountability has increased, as the mattresses are traced throughout the facility. And the real-time production overview that RFID allows, which can be accessed online by all relevant parts of the business, has driven supply chain efficiencies and had a knock-on effect on customer satisfaction. Traceability with regard to any quality issues has also greatly improved.

İstikbal Furniture is exceptionally pleased with the performance of the FX9500s and the Zebra printers, both being specifically designed to operate in the tough industrial environment of the factory floor. Moving forward, İstikbal Furniture will upgrade all its production plant printers to Zebra Technologies models. It is also planning to roll out RFID to its customer service and sales operations, as well as installing RFID in its textile manufacturing facility. It hopes to integrate its four big suppliers into a single supply chain and RFID infrastructure.

FOR MORE INFORMATION, PLEASE VISIT: WWW.ZEBRA.COM



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