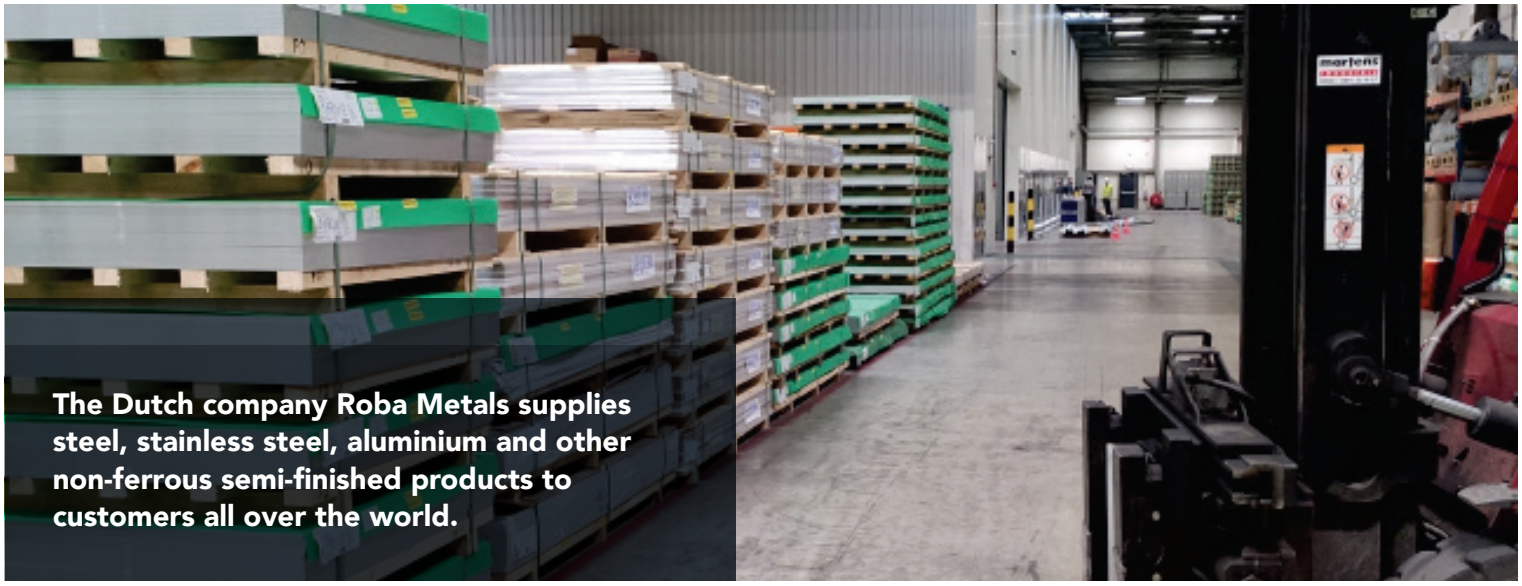
Case study

Aucxis uses SATO RFID solutions at Roba Metals for accurate, versatile and high speed performance



The Dutch company Roba Metals supplies steel, stainless steel, aluminium and other non-ferrous semi-finished products to customers all over the world.

SATO solution partner Aucxis rolled out an RFID pilot project in the Roba Metals service center and sales office in Genk to:

- **Deliver accurate pallet registration**
- **Reduce search times**
- **Deliver on time, every time**
- **Increase efficiency**
- **Provide seemless integration**

Over an area of 20.000m², divided into 4 halls, coils of stainless steel are reprocessed into cut-to-size plates, after which they are stored on pallets. The pallets are delivered from stock or on request to the customer, who processes the stainless steel plates into finished products, such as industrial kitchen and store fittings, machine parts and barrels.

Roba Metals Genk has an average of 7,000 pallets in stock, of which more than 1,000 are delivered weekly. There are 35 employees involved in the production and logistic flow.

The challenge

- **Replace traditional barcodescanner & Excel file**
  in order to locate the correct pallets for shipment
- **Implement a real-time detection and localisation system**
  that is linked to existing WMS
- **Increase operational speed**
  through accurate pallet registration and location efficiency

The SATO Solution

Aucxis proposed the CLNX Series of printers - an innovative and revolutionary solution that is designed for unparalleled user experience and large print runs.

Integration and reliability of RFID

Each pallet is provided with two tags printed with the SATO CL4NX RFID printer; this in function of the two different ways of loading (forklift truck and overhead crane). The RFID tags are written, read and verified inside the printer prior to printing. In the case of a tag failure, the RFID printers will mark the tag, send a 'bad tag' output and advance to the next one, assuring 100% reliability in this application. Roba Metals estimates to tag +/- 100.000 pallets this year.

RFID readers on the cranes & forklifts

In total 5 cranes are equipped with an RFID antenna for scanning the load. Each hall is divided into a grid, each section in the grid represents a drop-off zone or passage. Two range finders on the cranes determine the exact position in the hall based on X&Y coordinates. Also 6 forklift trucks were equipped with an antenna at the front - to identify the load- and an antenna at the bottom - for scanning the floor tags - in order to determine their position in the hall.

The crane operator or forklift truck driver execute the same tasks as before, but now also sees on a screen at which drop-off point which pallet has been picked up. Next, he confirms this on his touch screen. After confirmation by the user, the data is automatically sent to Roba Metals' WMS. The same hardware and technology (Aucxis middleware HERTZ) can be used for both identification and localisation.

Implementation

Aucxis proposed to implement the ATLAS Track&Trace solution. This provides an accurate and up-to-date overview of the internal logistic movements through automatic location and load control.

The choice was made to work with RFID UHF technology because it allows bulk scanning. Furthermore, the scanning process runs much smoother, and unique RFID tags are used.

Thanks to the ATLAS Track&Trace solution, every step of every pallet is monitored throughout the logistic flow, from storage after production to loading onto trucks for transport.

"The SATO CLNX printer is one of the most widely used RFID printers in the world, it enables us to print and encode numerous RFID labels. We have also configured this printer in our Middleware software and so it can be implemented very easily in an Aucxis solution. The SATO technical support is excellent and helps us to simplify this process"

Lauran D'hanis
Business Consultant
AUCXIS

Overall Impact

"The down-to-earth Aucxis' approach convinced us to work together. Today, we search together for the best solutions and achieve great results with our RFID applications.

Gert Machon, Production Manager Roba Metals

For the future, Roba Metals also considers RFID scanning of the shipments prior to delivery to the client. In this way, certain actions can be automated, e.g. change the status of the shipments in the WMS, print CMR's (transport documents), trigger accounting for invoicing, etc. The solution has been conceived in a generic way, which means that Roba Metals will be able to equip as many different sites as desired in the future.