

MIELOO & ALEXANDER

RFID enabled returnable asset management for Tata Steel

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The business base for RFID enabled returnable asset management

To protect high value industrial products, a lot of manufacturers develop customised packaging material that is used to transport the products to their customers. Managing the returns flow and keeping track of these materials, in many cases high value objects themselves, is often a sensitive

topic. Because during shipping, all focus lies on delivering high quality products in time and in full to the customer; and registering how many and which packaging materials are used is often neglected. The result: no visibility at which customer site the assets are, no

management process for getting them back in time, no reliable stock data ensuring sufficient assets are available for upcoming shipments, and in the worst case, rush orders to procure new assets to be able to ship the customer order according to promise!



Tata Steel Packaging

Tata Steel Packaging (TSP) produces high value steel coils. For the transport of these coils TSP uses a specially designed pallet or skid, made of LDPE to protect the coils that are transported to clients all over the world. TSP operates a pool of approximately 110.000 skids and faces the same challenges with regards to managing

the asset inventory as described above:

- Annual loss and replacement of up to 10% of the number of skids circulating across the supply chain.
- Labour intensive but inaccurate weekly cycle counts to manage stock levels.
- No visibility on stock levels at customers.

- Reduced availability of assets at the distribution points.

Therefore, TSP decided to implement an RFID based tracking solution based on Mieloo & Alexander's ScanTrack solution.

ScanTrack

Essentially, what ScanTrack does is, maintain a balance of assets received for each individual customer, by automatically registering the issuance of assets to the customer, and the receipt of the assets back from the

customer. As this is done based on unique RFID tags, the dwell time of each individual asset at each customer can be monitored. When the dwell time exceeds a pre-set limit, an alert is provided to the customer to return

the asset, and collection instructions to the logistics service providers. If this doesn't result in the desired effect, more severe measures like charging rental fees can be considered.

Key characteristics of the ScanTrack solution:

- Dependent on the asset, standard or customised UHF RFID tags, to meet the requirements of all possible environmental conditions.
- Fixed mounted, or handheld RFID readers, and device based (hardware agnostic) registration applications to automatically register in and outbound asset movements (linked to customer orders, outbound deliveries or shipments).
- A scalable, cloud based or locally installed balance management and reporting application that can work stand-alone or easily be integrated with ERP system.
- Intelligent event processing algorithms that validate and enrich all registration events.
- Real-time, comprehensive and secure web reporting and alerting portal accessible for all supply chain partners.



ScanTrack deployment at Tata Steel Packaging

For the specially designed steel coil skids of TSP, Mieloo & Alexander developed a special tag. Each skid consists of two halves that are tagged with a paired tag. The tag is a laminated credit card with perforated breakline to ensure the two skid halves are tagged together. TSP distinguishes altogether 6 different skids; tags for the different skids have a different colour.

The RFID reader technology is deployed both in the packaging line, where it is used to register the outbound flow of skids to customers. To determine the destination of the skid, information from the coil label is used. To capture the return flow of skids, RFID readers are positioned above the indoor off-loading point for trailers carrying the empty skids. The registration process is activated via a handheld device, where a loading or unloading activity is selected.

TSP reports the following key benefits of using ScanTrack:

- Reduction of working capital through accurate stock management and increased turnaround times.
- Reduction of transport cost as result of more effective skid return management (full truckloads of empty skids).
- No delays at the packaging lines due to skids out of stock.
- Clear visibility on stock levels at customer and TSP locations.
- Reduction of skid replacements as a result of identification of shrinkage locations.





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About Mieloo & Alexander Business Integrators

Mieloo & Alexander Business Integrators is a logistics consultancy firm and RFID integrator specialised in “technology enabled supply chain improvement”. As supply chain and logistics advisors we support our clients with their supply chain strategy, process redesign and with planning and managing the transformation project. And as RFID integrators, we help our customers to realise the benefits of AutoID technology and to improve and innovate their internal and collaborative business processes. We also offer standardised, modular supply chain solutions for Horticulture (ScanGreen), Asset Tracking (ScanTrack), biometric Time & Attendance registration (ScanTime), Linen Management (ScanBlue) and Apparel (TracEye). Mieloo & Alexander is based in Amsterdam and has a sales office in Rothenburg, Germany.

For more information, visit www.mielooandalexander.com.