



STOCK MANAGEMENT CASE STUDY: Melco Conveyor Equipment

Addressing The Challenge

Melco is one of the world's major conveyor equipment manufacturers, building and supplying idlers/rollers, motorised pulleys, and supporting structure for the bulk materials handling industry. Managing, monitoring and controlling stock and waste poses a significant challenge with projects that utilise such a large volume of individual components, so Melco implemented TransLution™ Software to improve stock management efficiency.

How TransLution™ Works

TransLution™ is a warehouse management tool that uses barcode labels, hand-held radio-frequency scanners and touchscreen terminals to record and track the movement of every product and component in a factory or warehouse environment.

Data is captured through simple interface scanners during each step of the workflow process. TransLution™ relays this information to the company's enterprise resource planning (ERP) software in real time – live reporting that allows for immediate changes on the line. Errors are reduced and the company benefits from active monitoring of daily operations

Improving Efficiency for Melco

All of the components required to build Melco's final products are produced in house. Each step in the production process utilises a dedicated factory, producing a large number of components daily. The TransLution™ system was implemented to track the progress of components and enable operators to view production data in different ways, offering unsurpassed job management.

In each of the four factories there is a wireless access point for every portable scanner to read the network and capture

data. The portable scanners communicate with barcode label and report printers, scanners and scales across the warehouse. Each department in every factory has their own scanner and login details. Raw materials are tracked and data is captured correctly and easily on the factory floor with an extremely simple-to-use interface, customised to each user.

Every steel coil stored in the factory is scanned before it goes into the plasma machine used to cut the metal into various components; the first step in the production process. Once scanned, a label containing a barcode or stock code, coil number and a brief description of the coil is automatically printed using the TransLution™ system and contains information on every variant of the component. Each machine used to produce the components is also scanned and linked to specific jobs in the system. Should an error occur in the production process, the information gathered from scanning at each stage in the job will be able to feedback if the error is with the machine itself, or one of the components in the machine. The data can point to the exact steel coil responsible for the error.

When this component's barcode is scanned at any time during the production process, from cutting steel coils to the final coat of paint, the system records when the order was issued and the time it was picked up. It then validates the products being picked against the order requirements, monitors how long it takes to complete an order and when it's ready for dispatch to the next factory. This data is relayed in real time and the system is set up to validate and respond to incoming data as needed.

The TransLution™ system ensures consistent quality standards and keeps well-documented reports including real-time recording of lot number controls, labour, machine usage and quality testing. Scanning a job at each point in the process generates a valuable bill of materials. This bill of materials contains information on what is made, what raw material was used to make it, what labour was used in the process and what residual scrap was produced.

SYSPRO Integration

The system integrates seamlessly with Melco's SYSPRO software. The updated Job information is stored in SYSPRO and can be referred to at any time during the process to map progress and ensure targets are being met. This real-time information helps to make quick decisions to course-correct a process and ensure the product rollout happens smoothly. Information is presented in custom views on-screen with drill-down, print, and export-to-spreadsheet capabilities.

The system improves efficiency even further by automating processing, publishing and email distribution of query reports on a schedule for both internal and external users.

During the assembly process, component A and component B are assembled to make up component C which is an entirely new product item. Each component is scanned before assembly and the final assembled component is scanned as well. This scanning process is significant because it records which raw material components were consumed during the production process and which finished goods items were manufactured. By updating SYSPRO with raw material issues and finished goods job receipts, SYSPRO stock is kept accurate without users needing to interact with SYSPRO forms.

It also provides costing details, and highlights stock and resource constraints. Operator views are custom tailored for production managers, procurement staff, sales people, logistics and general business management.

The Result

"Setup can take time but if you make use of the system properly, it's worth every second. The TransLution™ system gives me a much better grip on what's happening on the factory floor. It's not the kind of information you could have unless you were able to personally be at every machine during every step of the manufacturing process." - Manie Paulsen, Production Foreman at Melco

The software has also been optimised to monitor and report on employee performance and productivity in the warehouse – a valuable human resources tool. This data assists management in identifying and rewarding top performers, as well as addressing road blocks to improved workflow or slow performance.

"It goes a long way in helping with accountability. Because we can scan the jobs at every point, we can see exactly where an error happens and why it's happening. This can help us address challenges before they become problems." - Wellington Saira, Welding Fabrication Technician at Melco.

TransLution™ was able to provide valuable, real-time feedback from the factory floor to management empowering them with the detailed information they need to ensure smooth and timeous production of their product components.

About

Melco is one of the world's major conveyor equipment manufacturers, and the largest supplier of idlers/rollers in South Africa and Africa. Melco's scope of work includes the design, manufacture and supply of conveyor idlers/rollers, motorized pulleys, and supporting structure for the bulk materials handling industry.

AfriSoft Africa provides, implements and supports advanced, customised technology solutions for the complex requirements of agribusiness, manufacturing, warehousing and distribution companies. AfriSoft offers their clients practical, simple to use software and systems that integrate financial information with business operations resulting in measurable business improvements: efficiency, data accuracy, business control and access to business information.

TransLution™ Software makes managing complex production processes in manufacturing and warehousing companies simple. TransLution™ Software uses barcode scanners, touch-screen computers, direct integration to scales, flow meters, analytical testing equipment and other plant equipment to gather your manufacturing and warehouse information easily and efficiently. TransLution™ Software is implemented, customised and supported by AfriSoft Africa and is available in Africa, the UK and Europe and coming soon in N. America and Australia.