

Application Case Study - Paulig Group, Finland

Barcode scanning solution validates pallet labels to comply with GS1 standards and ensure supply chain traceability

Company Profile

The Paulig Group, an international food and beverage manufacturer, is known for its high quality products in coffee, world foods & flavouring, and industrial flavourings. Founded in 1876, the family-owned enterprise employs nearly 2,000 in 15 countries and netted 870 million Euros in sales in 2011. Paulig Coffee is the market leader in Finland and the Baltics, and the second largest supplier of roasted coffee in Russia. The company sells and markets roasted coffee, ready-to-drink coffee drinks, chocolate drinks, and filter services. Hallmarks of Paulig include its wide range of brands, ongoing product development, seamless quality control, responsibility from bean to cup, and development of new coffee trends.

In January 2010, Paulig completed a state-of-the-art coffee roastery, which is located in the Vuosaari Harbour Business Park in Helsinki. The facility fulfills roughly 100 million coffee packages a year for Finland as well as for export.

The Challenge

Streamlining logistics and shipping is one of the key development projects for the entire Paulig Group. Transportation of completed coffee products to the warehouses of its customers in Finland is handled primarily by the customers' transport partners. The products are packed for transport on recyclable euro or half-euro pallets, which are sized to fit efficiently inside the vehicles. Paulig's delivery service meticulously plans the packing of loads and transportation routes to minimize the number of transport batches.

As part of the development project, Paulig also needed to ensure that the labeling of the pallets was done to the highest standards to guarantee full traceability across the supply chain. Incorrect or unreadable barcodes could cause delayed or rejected shipments by Paulig's retail



Microscan's QX-870 Raster Laser Scanner validates the barcode on the pallet label immediately after it is printed.

chain customers, who generally place stringent quality requirements on their vendors.

Paulig contacted Informa Oy, a Microscan strategic partner in Finland, to find a labeling solution including printers, barcode scanners and label applicators. Informa Oy is the largest supplier of marking equipment, systems, and materials in Finland. The company, established in 1989, develops and supplies comprehensive production and logistics solutions for marking, coding, and labeling.

The Solution

Informa designed a marking solution for Paulig that not only prints and applies labels on two sides of the pallets, but also simultaneously validates the quality and readability of the barcode on the label to universally recognized GS1 standards.

■ **Requirement:** An automated pallet labeling and barcode validation solution to meet GS1 standards for logistics labels.

■ **Project:** Barcode scanning solution for pallet label validation at Paulig Coffee.

■ **Solution:** QX-870 sweeping raster laser scanner from Microscan connected to Orfer palletizing and labeling software.

■ **Result:** Compliance with GS1 standards, ensured quality and traceability, increased efficiency and elimination of human errors.

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Once a ready pallet approaches the end of the packaging line, all the necessary data for the label is sent to the thermal printer from a centralized manufacturing database. When the labeling system detects the pallet, a label is printed and applied with a robotic arm. The arm holds the label and swings to the front of the pallet and applies the label using a tamp pad directly onto the pallet. The pallet moves forward on the line, where a second identical label is applied to its side.

The A5 sized label meets the GS1 Standard International Logistic Label (STILL) recommendations for label code format, ensuring full traceability of each pallet and preventing successive relabeling of logistic units as they move through the supply chain. Each logistic unit must be identified with a unique serial number, the Serial Shipping Container Code (SSCC). The SSCC enables applications such as cross docking, shipment routing, and automated receiving.

Informa recommended the QX-870 sweeping raster laser scanner from Microscan for scanning and validating the barcode on the label immediately after it has been printed. The QX-870 laser scanner partners the latest technologies in barcode reading and connectivity in an easy-to-use solution for barcode track, trace and control applications. It is simple to set up and deploy, and features a programmable sweeping raster to read multiple codes in varying locations.

The Benefits

Inaccurate or unreadable barcodes on a pallet label can cause serious issues in the supply chain. Jari Hanén, Key Account Manager at Informa, explains: "Retailers and manufacturers usually have strict delivery and quality agreements. A poor quality barcode on a product or a pallet can result in delivery delays as well as extra costs, which could lead to sanctions or penalty fees." Hanén continues: "We recommended the QX-870 from Microscan thanks to its reliability. Even though the pallet could be registered manually or with handheld barcode scanners, an integrated and automated barcode scanning solution is the fastest and most reliable option in this case."

Paulig can rely on this automated labeling and validation solution to eliminate human errors, increase efficiency, and ensure that labels meet industry standards - all of which help to streamline Paulig's supply chain operations, ensure traceability, and decrease costs.

"Quality is key for us at Paulig," said Jukka Tuominen, Technical Manager at Paulig Coffee. "The labeling solution from Informa and Microscan has met our requirements perfectly, and we have been very pleased with its performance."



Paulig's state-of-the-art coffee roastery completes roughly 100 million coffee packages a year.



The QX-870 Industrial Raster Laser Scanner from Microscan

View a video of the labeling solution at: info.microscan.com/PauligVideo.html

Overview

- **Customer:** Paulig Group – Gustav Paulig Ltd
- **Industry:** Food & Beverage
- **Application:** Pallet Label Validation
- **Product:** Microscan QX-870 Industrial Raster Laser Scanner
- **Reseller/integrator:** Informa Oy

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