

Track-and-trace: HEMARGROUP reduces costs and warranty issues

How improving general reliability and productivity throughout achieves top-notch production standards



Successfully resolve problems related to warranty issues, reduce production costs, and increase productivity by eliminating internal defects and assembly errors.

Objective

Track 100% of production to reduce defects, assembly errors, rework costs, and warranty claims

Approach

Implement a powerful and reliable traceability system for all stages of production and delivery

Technical Requirements

- Successfully read small Data Matrix codes
- Read and verify codes at each production step
- Report product information data to a centralized location for inventory and production analysis

Results

- Reduced production defects by 30%
- Cut rework costs by 70%
- Reduced warranty claims by 25%

HEMARGROUP, a Switzerland-based electronics manufacturing services company, dramatically needed to improve its production quality and processes to comply with new NATO and medical ISO industry standards. The company saw this obligation as an opportunity to also reduce warranty and rework costs.

To accomplish all of these goals, HEMARGROUP wanted to be able to inspect 100% of their products at multiple points along the production line to catch quality issues as quickly in the process as possible. Finally, to limit liability and improve customer satisfaction in the event of recalls, product inspection and tracking systems needed to report operational data to a centralized enterprise resource planning (ERP) system.

Improve contract manufacturing through 100% inspection tracking

Most of HEMARGROUP's electronic products, such as computer boards and electronic components are small –

some measuring no more than a square centimeter – requiring printed Data Matrix codes for tracking each product to be even smaller. HEMARGROUP engineers knew that to read 100% of these codes, they needed a highly reliable and versatile solution — one that could read tiny codes of varying quality and position at production speed. Their list of required features for the new system was short but demanding and included the following:

- 100% code reading and verification down to the component level, with reporting to a centralized ERP system
- Versatility in terms of installation, operation, and data connectivity
- Ease of setup and use with an intuitive user interface (UI)
- High-quality support
- Demanding technical capabilities

The solution

- High-performance industrial 2D imagers: Matrix 120
- Omnidirectional bar-code readers: QuickScan™ 2D
- Warehouse mobile computers: Skorpio™ X3

Finally, like all smart shoppers, HEMARGROUP placed a premium on the price-performance ratio for any prospective solution.

Solve efficiency issues in 48 hours by working with the right partner

To build and install the fully customized solution, HEMARGROUP leveraged a Swiss systems integrator and Datalogic partner ID-Systems AG. In just two days ID-Systems was able to install and verify a complete system, including multiple code scan points along production lines, without negatively impacting operations.

ID-System's solution consisted of multiple ultracompact 2D code readers for the tightest installation locations, rugged hand held barcode scanners for rework stations, and more capable warehouse scanners for long-distance plant network wireless communication.

"As always, our relationship [with Datalogic] has proved fruitful. The solution for HEMARGROUP has generated outstanding positive effects for the business of the company," said Thierry Chambaz, application engineer at ID-Systems.

Using a combination of fixed micro-scanners and hand held scanners able to handle long-range scans from upper racks and short-range scans at production stations, HEMARGROUP has achieved 100% product traceability to the component level. Now the company can identify defective products very early in the process and before extensive resources are wasted on downstream production steps.

Catching defects early has helped HEMARGROUP reduce rework time and warranty claims while improving customer satisfaction.

“Thanks to Datalogic devices, all production processes have been improved, costs reduced, and productivity enhanced.”

*Andrea Moroni Stampa
Head of engineering, HEMARGROUP*

Finally, the system's ability to report production data back to the centralized Valor MSS ERP system has helped engineers identify problem steps in the production environment, optimize those systems, and reduce overall defects while increasing productivity.

Exceeds result expectations

With guidance from ID-Systems, HEMARGROUP was able to identify problem production equipment, and reduce defects by more than 30% while cutting rework costs by more than 70%. Fewer defects also resulted in a 25% decrease in warranty claims. And when defects do arise, HEMARGROUP's 100% product traceability means the company can easily recall the complete history of each product and respond quickly and effectively.

The new HEMARGROUP track-and-trace system improves productivity, reliability, profitability, and customer satisfaction, all while enabling electronics manufacturing service providers to meet and exceed new NATO and medical ISO standards.

Learn more:
www.datalogic.com



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