



Case Study

Goals

- Error reduction
- Improved ergonomics
- Process digitization

Results

- Zeroing out errors
- Training time reduced by about 80%
- Increased comfort and safety for workers
- 100% elimination of paper

Future implementations

- Extension of the solution to other areas of the plant
- Additional data collection and the development of new KPIs

Spark revolutionizes Whirlpool's supermarket with Pick-by-Light technology

Whirlpool's European hob manufacturing hub has implemented in its supermarkets the Pick-by-Light technology of the Electronic Shelf Labels to ensure maximum efficiency in the servicing of production lines.

The new process, digitized and orchestrated by Spark, has led to total paper elimination and has allowed the company to drastically reduce errors and operators' training time.

Spark is KFI's software platform to support logistics activities, that is able to connect to key host systems to enable the use of innovative technologies via optimized process logics. In addition, it collects real-time operational KPIs displaying them through customizable graphical dashboards. Spark orchestrates operators allowing them to work seamlessly with various solutions such as voice systems, ESL, Pick/Put by Light, RTLS, RFID and AMR.



Whirlpool facility in Melano – Fabriano (AN), Italy

The Whirlpool Corporation in 2015 built the European hub for the manufacturing of hobs for EMEA markets at its facility in Melano (AN). There, about 1.5 million household appliances flow across 12 production lines each year.

In 2021, in part thanks to the partnership with KFI, the plant obtained “Bronze Level” certification for its commitment to continuous improvement in terms of safety, quality, productivity and efficiency within the “World Class Manufacturing” program.



Eleonora Notarpietro,
Supply Chain Manager



Gaetano Perticone,
WCM Engineer

/ THE CHALLENGE

Zero imperfection goal: starting with picking

At the Whirlpool plant, the production cycle for hobs is distributed over 4 assembly lines, supplied by 2 supermarkets structured to accommodate up to 4,500 different components. Manufacturing handles the complexity resulting from the assembly of over 600 different products, with a paper-based picking process that produced errors, not-always reliable data, and the risk of losing or damaging the paper support.

/ THE SOLUTION

Spark, the software platform that optimizes process logics in the intralogistics industry

The project team decided to intervene in one of the supermarkets by opting for the Pick-by-Light technology of electronic labels. The ESLs employ different LED colors to guide the work of multiple operators simultaneously and update their displays, indicating the quantities to be picked and the number of the current mission.

The integration of the solution with Whirlpool’s SAP MII management system is guaranteed by Spark, the KFI Software platform that enables the use of the most advanced field technologies according to optimized process logic. Client-side, the app displays the list of work orders in chronological order on the terminal, forcing the operator to follow a certain consequentiality, while the administrator views the operational process data in real time. This allows the progress of activities to be monitored through graphical dashboards.

/ THE RESULTS

Zero errors and reduced training time thanks to the ESL

During the first few weeks after implementation, no incorrect components reached the production line, and staff training time dropped by about 80%. In addition, data digitization has resulted in optimized management, improved operator ergonomics and a complete abandonment of paper, with positive effects on sustainability.

“Initially, the change brought some resistance. The more experienced workers were used to relying on their memory but now, thanks to the LEDs, they work better and they feel more confident.”

states Gaetano Porticone - WCM Engineer

The upcoming steps include extending the system to the second supermarket as well. For Eleonora Notarpietro – Supply Chain Manager – in fact,

“the strength of such a solution is that it is extensible on a large scale to the whole warehouse, and this is the direction in which Whirlpool is moving. It is a project that we are very proud of, and we are always happy to present it to colleagues from other plants or visiting members of Management”.

KFI

With innovation as a constant driver for continuous improvement, since 1991 KFI has been supporting Supply Chain companies in the implementation of technologies and solutions, driving them to Industry 4.0.

KFI’s mission is to bridge the gap between modern field technologies and business logics through the integration with the main management systems, placing its expertise and services at the disposal of companies, of any size.

