

RFID technology in labeling process

Project participants

Client: AB „Kauno baldai“



„Kauno baldai“, a SBA group company, designs and manufactures innovative and modern upholstered furniture. The company's team creates its own collections and gradually reduces custom production. Every year, dozens of new products are presented at the largest and most important furniture exhibitions in Europe

Projektai įgyvendino: UAB „DS Projekantai“



DS Projekantai UAB specializes in solutions for automatic data collection and integration into management systems. These are mainly solutions for logistics or production based on barcode or RFID technologies. The company pays the most attention to the analysis of the customer's needs and the optimization of the solution.

The situation

The wide variety of furniture produced by AB Kaunos baldai and the large circle of customers determine that accurate and fast marking of production packages becomes critical. Therefore, opportunities are being sought to optimize the marking process.

The problem

When packing various products, errors occur and time is wasted in selecting the necessary labels from ready-made ones. It is necessary to eliminate errors while reducing the time spent on applying labels.

The solution

Radio frequency identification (RFID) technology is used for product identification in packaging areas.

Warranty RFID labels are printed in the production areas, the data required for which is obtained from the business management system. Such labels are pasted inside the product packaging during the production process. Since such a label cannot be visually identified in the packaging area, fixed RFID readers and antennas are installed on the packaging conveyors to read it. As the package

moves along the conveyor, the information on the warranty label is scanned and the necessary labels are automatically printed, which the workers stick on the packages. At the same time, information about the packaged product is presented on the information screen.

Since there are several packing zones, the solution ensures that the warehouse labels will be printed in the zone where the labels were scanned.



SENSOR / RFID



PRODUCTION LINE

Mobile data loggers with RFID scanning function are used in manual packaging areas or for label reprinting.

All equipment - scanners, printing devices can be moved to other packaging areas, maintaining the data flows and parameters of scanning and printing.

DS Projektai UAB provided hardware and software for RFID label printing, RFID stationary scanners, antennas, labels, as well as data loggers with RFID scanning function. The NiceLabel® software platform was used for label printing and integration needs



UAB "DS projektai" also designed the logical and technical parts of the solution, installed and configured the hardware and software:

- Convenient label printing tools on the NiceLabel® platform
- Tools for integration with the business management system and information display service system on the NiceLabel® platform
- Stationary RFID reader and data logger software
- The solution requires API functions and a database

Results

- Inconsistencies in labeling are eliminated
- Faster overall process by reducing label preparation and labeling time
- Digitization of processes:
 - o Accumulating accurate data on the movement of each production package in the packaging areas and on all labels printed in the process, recording the time of all operations
 - o Collecting data on the work done by employees in the packaging areas