

Case Study

# Electronic components variability management





## Case at a glance

### **Managing business growth with automated warehouse solutions**

TCI Telecomunicazioni Italia Srl, based in Saronno, designs, manufactures, and distributes components for the lighting industry worldwide. Thanks to its adaptability and flexibility, it has become a leading company in Europe's lighting sector. Over the past four years, TCI has seen a turnover growth of more than 40%, resulting in a significant expansion of its product range and a need for optimal production and logistics processes management. To ensure uninterrupted production, TCI maintains very high stock levels by planning orders well in advance, sometimes up to a year, ensuring a continuous flow of materials.

# Maximize traceability

## Customer and task

Previously, TCI primarily produced standard products, but now faces a high variation in orders and increased demand for customized products. The company adapted its production, increasing the number of codes managed in the warehouse from a few references to over 6,000 different items. TCI's challenge was to find the optimal solution to boost productivity, reduce staff handling and picking times, manage highly fragmented order volumes, and minimize picking errors due to the aesthetic similarity of components.

## Solution

For TCI, Kardex designed a solution with 13 VLM Kardex Shuttles to serve both production and logistics, managed by custom software. TCI prioritized minimizing human error in warehouse replenishment and order picking, given the visual similarity of many components. With the integration of the Display LED Navigator module, operators are assisted during picking by customized light messages, enhancing accuracy and performance. Despite initial skepticism, the automation implementation at TCI proved successful, with staff quickly overcoming resistance and actively optimizing the use of Kardex warehouses. Automation has reduced processing times, improved traceability of raw materials and finished products, and allowed for consistently high stock levels to ensure continuous production.

**-90%**  
Picking errors

**+80 %**  
storage space

**Reducing**  
production time



### Scope of delivery



10× Vertical Lift Module Kardex Shuttle 250



3× Vertical Lift Module Kardex Shuttle 700  
with customised tray dimensions



Kardex Software Power Pick System &  
Kardex Display Led Navigator