

“Thanks to a high level of automation and digital optimization, we were able to re-balance operator activities reaching maximum efficiency.”



### TE CONNECTIVITY (BELGIUM)

Geert Engelrelst  
Digital Factory Leader Automotive EMEA

**TE CONNECTIVITY** is a global technology and manufacturing company producing connectivity and sensor solutions for transportation and industrial applications, medical technology, energy, data communications and home applications. With more than 75 years of leading technology, the company serves customers in more than 150 countries. TE Connectivity has about 100 global Manufacturing and Engineering Centres and employs 78.000 people worldwide of which 7.000 engineers.

Geert Engelrelst: “At our Manufacturing & Engineering Centre in Oostkamp (Belgium), Lean Manufacturing is highly embedded in our culture, continuously optimizing existing processes, reducing and if possible eliminating all kinds of waste activities. Existing material handling methods were analysed and improvement areas defined. This typical

kaizen event led to the insight that a high efficiency improvement could be reached if carton box folding and taping could be automated, in combination with a flexible ordering method. As multiple competences were required to deal with this challenge, partner selection was crucial.

“We have chosen Pattyn as they offered us a tailor-made solution.”

“The detailed analysis learned that 25% of the time was assigned to fold and tape carton boxes. This insight resulted in separating (or decoupling) the folding and taping activities from the initial tasks of the material handler which mainly includes loading, distributing and unloading boxes. Next step was to automate the manual folding and taping process.”

“Pattyn delivered a fully automated case erector with 3 separate magazines, a folding & gluing unit, an undertaper and outfeed conveyor, meeting the different needs we had:

- Automated single touch change-over
- Remote ordering of boxes (via web application)
- Combination of gluing and taping 3 different box sizes

In addition, we solved the quality problem and operator ergonomics & safety problem. This means no more electrical components trapped under the inner flap, no more repetitive work at high frequency and no more unstable stacking of boxes.”

Geert Engelrelst concludes: “By applying digital technology we achieved maximum efficiency. The complete process is designed to allow remote or local ordering on box level. Thanks to the use of a Web Application, the material handler orders the required boxes remotely via a tablet. This info is automatically transferred to the case erecting machine. To ensure minimum changeover, orders run quickly one after the other, starting with all medium sized boxes, followed by the large sized and finally small sized boxes, based on the available orders.”

“Packaging is one of the contributing elements which determines the delivered quality to our customers.”



### PRODUCT & CONTAINERS

- Electrical components packed into boxes

### CHALLENGE

- Increase material handling capacity without additional manufacturing cost
- Improve packaging quality
- Increase operator ergonomics

### RESULTS

- Automated box forming and gluing process
- Reduction of total manufacturing cost
- High quality packaging process which allows remote ordering on box level