



CASE STUDY



1 | Challenge : **Large charging room with maximum capacity**

One of the world's largest logistics service providers, operating in 30 European countries and benefitting from the rapid growth of e-commerce, invited HOPPECKE and its forklift truck supplier to take part in a tender to offer a solution tailored to its future fleet.

With 3.27 of 5.0 points, the Czech Republic lands on second place behind Germany with 4.14 points. What was measured? Not the beer drinking behaviour, what one could think, but the logistical competences of European countries.

The central location of the Czech Republic makes it a very attractive country for the logistics sector worldwide. Many large logistics companies have found their way into the country for some years now - including our customer in 2022.

His main goal was to launch a complete distribution centre in a newly built and fully automated facility in the Czech Republic, with an area of nearly 60,000 m², ensuring the save charging of the fleet of forklifts in accordance with Czech regulations.

Considering the 3-shift work system and the forklift fleet of approximately 162 forklifts, a solution was sought to optimize the shipping process to meet increasing customer demand in central and western Europe. As a distribution centre, one of the most important criteria was to ensure uninterrupted operations allowing the warehouse to run faster, more efficiently and more safely.

In order to keep the fleet of electric forklifts operating in a multi shift operation, it was necessary to provide an efficient system for charging and replacing the motive power batteries.

HOPPECKE was awarded the project which included the design, preparation and implementation of a new charging room area.

Large distribution centre was to be equipped

3-shift system required a charging station

162 forklifts needed a charging system

Sustainability was to be considered



Key Account Manager
HOPPECKE Poland

„We are happy to confirm that we have successfully equipped one of the largest charging rooms in Eastern Europe and therefore were able to satisfy our customer.“

Increased productivity due to reduced change duration

Increased availability through intermediate charging

Cost benefits through investment and operating costs savings

Sustainability through optimizing energy usage

2 | Solution : Fully equipped battery charging room for an optimal battery management

In order to meet the customer's requirements for an uninterrupted and efficient operation during a 24-hour warehouse operation, a stable and transparent power supply system and a reliable battery replacement system were needed.

HOPPECKE proposed a charging station layout based on a trak |Xchange TU system for 24V batteries and a trak | Xchange PU system for 48V batteries. The use of these systems made it possible to optimize the battery replacement process considering the number of batteries needed, their size and the type of forklift in which they will be used.

With trak | monitor, HOPPECKE was able to provide a management system for charging stations, batteries and chargers to give the customer the necessary performance and consumption data. The data is readily available, and the customer can generate reports allowing the charging process to be reviewed.

The use of the trak |NFC battery identification module

installed on every battery enables the identification of a specific battery serial number with a specific charging process. This is the highest possible transparency so the customer can get real-time data enabling fast decision making.

With such a large charging room, the customer's priority was to provide the warehouse employees with a safe working environment. To ensure this, a ventilation system was designed and installed including air extraction and a HVAC compensation unit. This solution has enabled a safe charging environment with the simultaneous removal of dangerous and potentially explosive gases, removing them from the building.

Thanks to the proposed solutions, it was possible to build one of the largest and most modern charging rooms in this part of Europe. The preparation of a customer-oriented solution has significantly increased the daily warehouse operational capacity putting people and the environment first.

Key Benefits

- Longer Lifespan through systematic battery usage
- Reduced maintenance costs through transparent battery management system
- Minimized downtimes through optimized management
- Early detection of faults due to monitoring

3 | Products :

- ▶ **Chargers:** trak | charger HF premium
- ▶ **Battery changing system :** trak | Xchange TU, PU
- ▶ **Battery management system:** trak | monitor 4.0
- ▶ **Battery controller:** trak | collect



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