

# BENTELER Group

## Tailored transport system for large goods carriers in tight spaces

### INDUSTRY

Automotive supplier

### PLACE

Paderborn,  
Germany

### DELIVERY

Phase-related,  
first delivery Q3 2023

### SOLUTION

Development and integration  
of customer-specific superstruc-  
tures and charging stations

### THE CUSTOMER

The BENTELER Group is a global supplier of vehicle components to the automotive industry. At its Paderborn site, the company group has 800 employees and around 450 welding and handling robots at its Paderborn site. There, they manufacture safety-relevant chassis components such as front and rear axle carriers, A and B pillars and crash management systems.



### INITIAL SITUATION

For BENTELER, efficient material planning, a reliable material flow, and the digitalization of value creation processes are essential. The company was therefore looking for an automated solution for its own intra-logistics. The goal was to combine different systems and processes within one production line and transport goods without forklift trucks from A to B.

During this project, BENTELER faced the challenge of transporting heavy goods carriers with very large dimensions in a very confined space.

» We contacted over ten suppliers, and in the end, Grenzebach won the contract with a convincing technical concept and personal commitment. We are still absolutely behind this decision today. «

**Alexander Gerendt**

Project and Production Engineer Plant,  
BENTELER Group



## CHALLENGES

The production halls at BENTELER have limited space, while at the same time large goods carriers must be transported quickly and reliably. A customized system with individual superstructures and charging stations had to be developed due to the manufacturer-specific dimensions of the goods carriers. This should not only accommodate the dimensions of the goods carriers, but also take the spatial conditions into account and maximize the advantages of the vehicles in terms of speed and maneuverability.

## IMPLEMENTATION

Therefore, it was essential that Grenzebach inspected the conditions at the location before the project was awarded to develop a technically convincing concept. As a result, BENTELER and Grenzebach always understood what was working well and what needed further improvements with the existing infrastructure. BENTELER supplied a rough layout of the production hall during the planning phase. Based on this and the on-site appointments, Grenzebach could examine the envelopes, the accessibility of the individual stations, the routes, and possible obstacles.

Grenzebach has equipped the vehicles with customer-specific, specifically designed superstructures for the special dimensions of the goods carriers. Grenzebach thoroughly tested in advance. The charging stations were also customized. In the first project phase, bidirectional L1200S vehicles were installed. At the same time, BENTELER received the Fleet Manager as a control system, a role-rights system and extensive training on how to use the systems. In the second project phase, the omnidirectional OL1200S vehicles extended the BENTELER fleet. Further vehicles were supplied in the third phase.

## BENEFITS

### Individual

From the superstructures to the charging stations – everything was custom-developed and manufactured.

### Expandable

The system keeps growing along with its tasks and can be expanded with new vehicles anytime.

### 24/7

The vehicles run reliably around the clock, offering high process reliability and a continuous material flow.

## CONCLUSION

Grenzebach has combined tight spaces and oversized goods carriers with individual solutions. By working together as equal partners, a suitable concept was quickly developed and implemented with the customer. BENTELER is already working on new automation projects and has ordered further vehicles. Grenzebach will continue to provide the customer with advice and support as a strong journey partner.

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