



The task

Efficient and fast, even for small loading volumes: that was the goal that Elvis Teilladungssystem GmbH set itself when it was planning a new goods handling facility. Now smaller part loads can be handled rather than the pallets having to be processed individually. The plan was also to utilise the loading capacities of the lorries to the fullest extent.

The result of this is a 10,000 square metre hall with two entrance/exit doorways through which the lorries drive in and out. The entrances and exits were planned to be extra-large so that they do not become an obstruction in the hub. They are 15 metres wide and almost five metres high.

A special solution was needed for the doors. The door and gate specialist Teckentrup rose to this challenge. The basic idea: A design with roller shutters was required, despite the fact that the entrances and exits needed to be very wide.





The solution

Two doors located next to each other, in which the middle post takes over the lateral guidance; the post then slides to one side when the doors are fully opened. Eight ThermoTeck roller shutters with direct mount drive were fitted into the four hall entrances - two for each opening. The middle post is 50 cm wide and is made from galvanised steel; it ensures that the doors remain stable and assists with guidance. It is connected with the guide rails at the top; using these it can also be shifted to the side. Safety is ensured at all times: To shift the post, it must first be unlocked; in the same manner, the doors can only be moved when the middle post is locked in place. As the glazing is on eye level, it is easy to see what is happening on the other side.



Lorries can be up to a size of 18.75 metres long, 4 metres high and 2.55 metres wide and what's more, vehicles that big are not necessarily a rarity! So it's logical that the halls and storage facilities that such lorries visit need to be big enough to accommodate them. 70 to 75 lorries enter the large entrances from all directions.

Fork lift trucks arrive immediately, load and unload the lorries and the vehicles are quickly back on the road, with new goods and new destinations. 700 to 800 tonnes of goods are moved every night. But there is still room for more: The capacity limit is 200 lorries; the current plot of land would permit three times as much stock to be processed if further facilities were built.







The special guide rail system means that the unlocked middle post can be easily shifted aside, opening up the entire width of the doorway. Both doors are opened and the middle post is shifted to the side; this allows the vehicle to pass through the doorway without having to manoeuvre extensively.

The double door solution means that the doorway can be opened completely or halfway. Safety first: The door can only be moved once the post has been firmly locked in place. This prevents the door from coming down accidentally. A sensor detects whether the post is properly secured or not.



TECKENTRUP I OBJECT REPORT

Elvis Teilladungssystem GmbH is a subsidiary of Elvis AG. Since May 2011, it has been operating Germany's first part loading system, since May 2012 in Knüllwald-Remsfeld. Haulage and freight companies have founded a lorry part loading system with a European connection system that operates under the name "Elvis Part Load Network".





Construction Board

Object	Part load hub (Teilladungs- hub) Knüllwald
Principal contractor	Elvis Teilladungs- system GmbH
Project management	Köster GmbH, Gießen
Doors	Teckentrup, Verl (8 roller shutters ThermoTeck)
Construction costs	approx. 6 Mio. Euro
Building time	6 months

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