

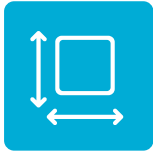
Case Study

Golbey PM1 Project





Industry
Pulp and paper



Cargo dimensions
Drum section
up to
32 x 5.6 x 5.7 m



Cargo weight
Up to 195 MT



Challenges
Centimeter-wise
maneuvering of
OSHL units



Origin and destination
From China to
France



Highlights
On time, within
budget, without
QHSES incidents



Arrival of the cargo in Lunéville, France

Case Study: Golbey PM1 Project

For the Golbey PM1 Project, deugro Germany, in close cooperation with deugro China, deugro Belgium and deugro France, successfully delivered two drum sections from China to France for the pulp and paper industry.

deugro's teams were engaged by their client Voith Paper more than 2.5 years prior to the transport taking place to investigate the overall feasibility and determine the maximum cargo size able to be transported.



Discharge operations at the Port of Antwerp, Belgium

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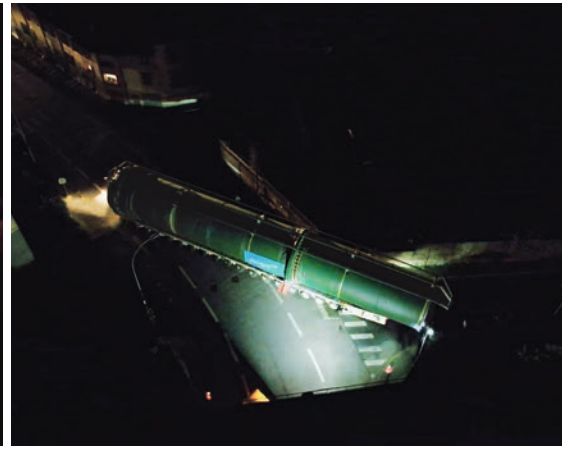
Challenges

- Unit weights of up to 195 MT and impressive dimensions of 32 x 5.6 x 5.7 m
- Maneuvering the OSHL components through the many traffic circles and tight turns, as well as traversing the Town of Lunéville

Detailed planning and preparations were required to ensure the safe transport of the drums with dimensions of up to 32 x 5.6 x 5.7 meters and weights of up to 195 metric tons—especially on the complex on-carriage route from the closest river port to the plant. To determine the most suitable routing, several route surveys, including turning simulations and swept path analyses, were conducted by dteq Transport Engineering Solutions along with local partners on deugro's behalf.

In line with the tight schedule and under the personal supervision of deugro Shanghai, the drums were safely loaded at the Port of Shanghai—on dship's MV *Annie*—and shipped on a last-in/first-out basis to the Port of Antwerp.

Once in Antwerp, the cargo was discharged to the quay to allow deugro Antwerp to assemble and mount the cable guiding system onto the drums prior to loading the cargo onto the river vessel. After arrival and discharge at the river Port of Frouard, France, the drum sections were ready for the on-carriage by road to the job site in Golbey, France, under coordination by deugro Paris.



Navigating the 32 m drum section through the Town of Lunéville with centimeter accuracy

The most challenging part of the journey was the maneuvering through the many traffic circles and tight turns, as well as traversing the Town of Lunéville.

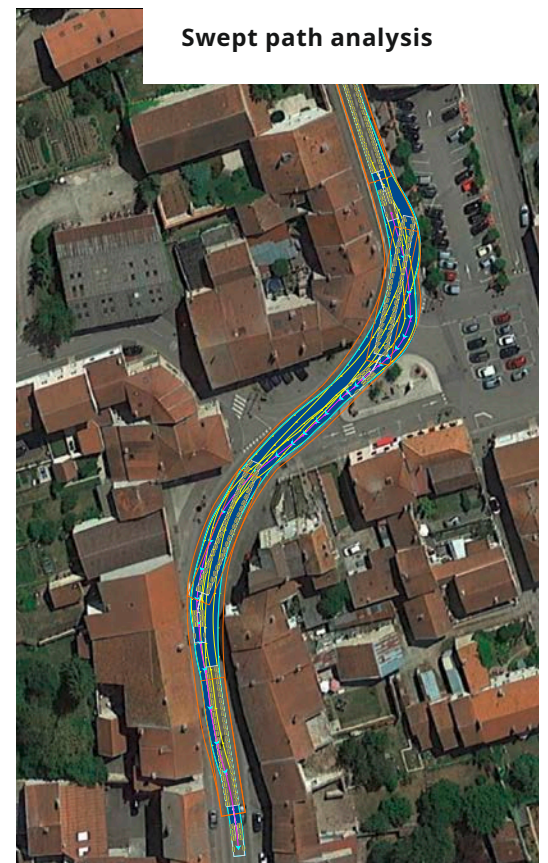
To allow for the safe navigation through the extremely sharp turns in the Town of Lunéville, deugro arranged the transfer from conventional THP trailers to self-propelled modular trailers (SPMTs) using a jacking/stooling operation. After crossing the most critical turns in the city, the cargo was transferred back onto the THP trailers for the remaining on-carriage.

Another operational challenge was the passing of a railway bridge near the Village of Méhoncourt. Six additional axle lines had to be mounted to the modular trailer to

stay within the allowable bridge capacity determined by the road authorities, then dismantled after passing the bridge.

To ensure flawless and safe transport operations, deugro's teams personally attended the entire transportation, including all critical interfaces. The drums were safely delivered to the client's satisfaction, according to the schedule and budget.

Cargo safely delivered to the job site in Golbey, France



Swept path analysis