Wienerwald, Austria

Transport Box

About the Project
The Wienerwald tunnel is a major construction of the Austrian National Railway (ÖBB) for the Western Railway’s four-track expansion between Vienna and St. Pölten. The travelling time of the trains is to be reduced drastically with two one-track tubes with a length of 10.75 km each, an excavation diameter of 10.6 m and cross passage connections every 500 meters. This tunnel construction basically consists of two very long one-track tubes and one 2.4 km long double-track tube on the Vienna side of the Wienerwald tunnel. The inside diameter of the lining segment sleeve socket amounts to 9.65 m.

Project Data

Country: Austria  
Builder: ÖBB – Infrastruktur Bau AG  
Customer: Arge Wienerwald, Chorherrn Porr Tunnelbau GmbH, Bilfinger Berger Bauge- 
  sellschaft m.b.H., Bilfinger Berger AG, Porr Tech-
  nobau und Umwelt AG, Züblin Tunnelbau, Hoch-
  tief Construction AG, Jäger Bau AG, Swietelsky 
  Baugesellschaft m.b.H.

Tunnel length: 2x 10.75 km  
Type of heading: Single Shield-TBM  
Inclination: max. 0.28%  
Excavation Diameter: 10.64 m  
Lining Segment Interior Diameter: 9.65 m  
Invert Lining: In situ concrete in the back-up  
Double-Track Supply: 2 x 900 mm Track  
Removal: Tunnel conveyor continuously expandable to back-up

Contract awarded to Rowa
Rowa has been contracted by the join-venture Wienerwald Tunnel to de- 
velop, produce and supply special transport boxes to feed the headings.
The Concept

Two different train combinations are employed to supply the headings.

Supply train lining segment crane

This train is transporting lining segments as well as material for the annular gap back filling. The latter is transported as follows:

- Gravel in open silos with floor discharge
- Sand in 2-component silo, open silo part with floor discharge
- Bonding agents in 2-component silo, closed silo part with special floor discharge slider

Supply train invert concrete

The invert concrete (earth moist) is transported in open baskets. These baskets are transported with a special crane to the construction site and there rotated 180° for quick discharge.

Scope of Supply

Rowa has delivered the transport boxes mentioned below to complete the two back-up installations for the two TVM-headings, which were also built by Rowa.

**Gravel transportation silo**

- Amount: 15 Stk.
- Net content: 11.6 m³

**Sand- and bonding agents silo**

- Amount: 8 Stk.
- Net content sand: 5.7 m³
- Net content bonding agents: 1.9 m³

**Invert concrete transport box**

- Amount: 40 Stk.
- Net content: 4.5 m³