Ermenek, Turkey

Back-up installation for Gripper TBM

About the project

The project consists of an 8,064 m-long pressure tunnel which, in future, will route the water from the dam to the power station control room. The project is to be completed in as little as 5 years.

Project data

<table>
<thead>
<tr>
<th>Country</th>
<th>Turkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Execution period</td>
<td>2002-2007</td>
</tr>
<tr>
<td>Building owner</td>
<td>Alpine Mayreder Bau GmbH, Salzburg</td>
</tr>
<tr>
<td>Contract awarded to</td>
<td>Wirth GmbH, Erkelenz</td>
</tr>
<tr>
<td>Task of the back-up system</td>
<td>Supply and disposal for high-performance TBM driving operations</td>
</tr>
<tr>
<td>forwarding</td>
<td>Gripper TBM</td>
</tr>
<tr>
<td>Forwarding length</td>
<td>8,100 m</td>
</tr>
<tr>
<td>Excavation diameter</td>
<td>6.63 m</td>
</tr>
<tr>
<td>Timbering and walling</td>
<td>Shotcrete/in-situ concrete</td>
</tr>
<tr>
<td>Ascending gradient</td>
<td>0.5 %</td>
</tr>
</tbody>
</table>

Contract awarded to Rowa

Rowa is to supply a follow-on installation with a length of approx. 260 m and a total weight of approx. 400 metric tons for a Wirth Gripper TBM.

And Rowa will supply three segment transport cars for the Alpine Mayreder AG Company.
Ermenek, Turkey

Concept
The follow-on is a two-tier, twin-track follow-on, supported on the bed segment, with vertical train loading by belt unloading car.

Special aspects
The special aspect in Rowa's scope of delivery relates to development of a mechanised all-round anchor drilling facility and a longitudinal traversable shotcrete robot with a spray range of 320°.

Scope of delivery
- Materials handling area behind the TBM with materials handling crane
- Consolidation area with
  - all-round anchor drilling facility
  - shotcrete robot
  - bed cleaning
- Apparatus platform deck with infrastructure
- Intersection points
- Twin-track rail station for a train make-up length of 100 m with a longitudinally traversable belt unloading car for loading the dumpers at the left or right-hand side.
- Points/ramp with further infrastructure equipment. The follow-on installation is supported so that it is able to move on bed segments.

Technical data
- Back-up system length: 260 m
- Envelope diameter: 6,000 mm
- Back-up system weight: approx. 400 metric tons
- Connected electrical load: approx. 200 kW
- Forwarding time: 24 hours/working day