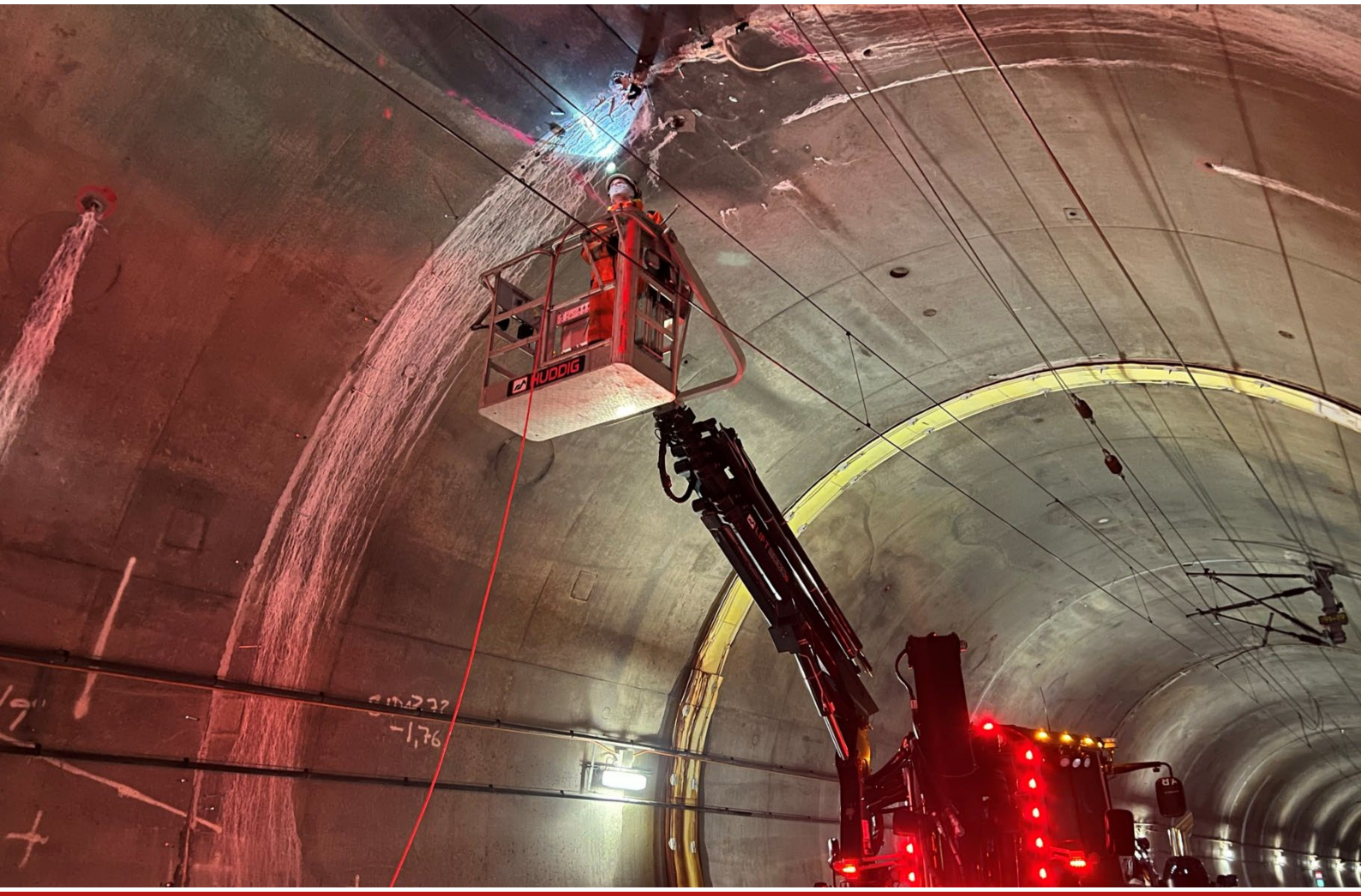

Tunnel Hallandsås (S)
Rehabilitation

Country	Sweden
Type	Railway Tunnel
Client	Trafikverket (Swedish Transport Administration)
Execution of the work	Renesco GmbH
Construction Period	2024

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Project Description

Sweden's largest rail infrastructure project in the last 40 years under extremely complex geological and hydrological characteristic. Twin-tubes including 19 cross-passages and located in a region (the Malmö-Göteborg axis), close to the coastal resort of Båstad.

The Hallandsås mountain range alternates between bedrock and loose unconsolidated ground. The area of Möllebäck is so waterlogged that it can spout up to 400 liters per second when the ground is pierced.

Boring on the 8.6km long link through a ridge of geological material with a high groundwater content up to a water pressure of 15bar, involved major operations of a closed slurry mode TBM and NATM, pre-consolidation pre-grouting, and an extensive ground freezing installation. The single, Ø10.6m TBM on the project, cleared the 250-300m frozen section through the Mölleback zone.

Scope of Service

Rehabilitation works in the northern part of the tunnel (Båstad) via chemical injection via 2K-PU and 4K-acrylic resins:

- of the leaking joints
- of the leaking compartments

Including:

- developing of a remedial grouting concept
- material risk assessment & approval
- environmental risk assessment & approval

Environmental initiatives are a central part of the rehabilitation works (groundwater, chemicals, and ecology).

1. Roof area, leaking joint
2. Injection/ Grouting works in the tunnel
3. Rehabilitation works of a leaking joint area at wall area