



Mariedammstunneln (S) Water & Frost Protection

Country	Sweden
Type	Railway, Tunnel
Client	Swedish Transport Administration (Trafikverket)
Main Contractor	Infrakraft Sverige
Execution of the work	Renesco GmbH
Designer/ Engineering	AF Consult
Construction Period	2022

Project Description

The Hallsberg–Degerön route, total 46 kilometers in length, consists of multiple projects in various stages of completion including two tunnels, the Tripphult tunnel and the Mariedamm tunnel.

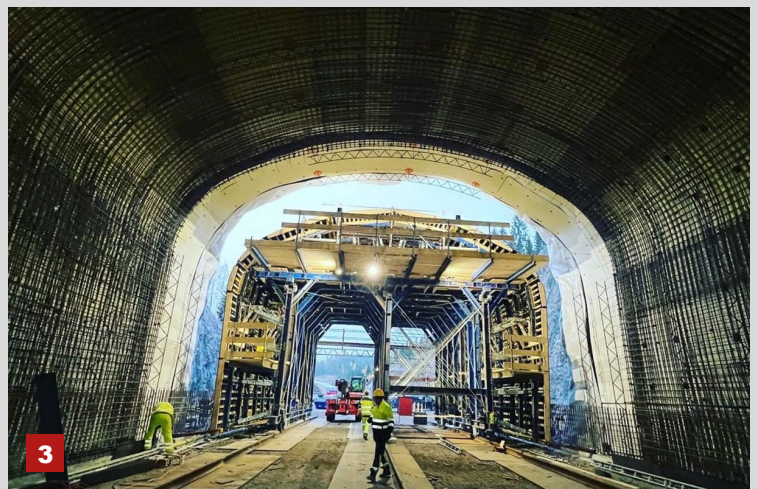
The 260m long Mariedamm is a double-track railway tunnel, with pedestrian walkways on both sides of the tracks, part of the Dunsjö – Jakobshyttan stretch at the lake Skeppsjön, 3km of new double track along the existing track line and 2.5km of double track in new terrain. It is the first railway tunnel to be built in Örebro County in nearly one hundred and fifty years.

This tunnel is built with inner concrete lining (cast-in-place, reinforced), drainage system and a waterproofing sheet membrane in contribution to a lower maintenance cost and to a significantly extend design-lifetime.

Scope of Service

Supply & installation of a water & frost protection system, as umbrella sealing/ drained tunnel structure, sandwiched between the primary shotcrete lining and a cast-in-place concrete inner lining.

- Geotextile, 500g/sqm, polypropylene (PP)
- Sheet waterproofing membrane, TPO/FPO with a thickness of 2mm, thermo-welded
- Protection layer, 0.5m width, every construction joint
- PE foam, 50mm thick, full surface
- Anchor bolts including pull-out-testing
- Termination detail, adhesive tapes/ strips
- Supply & install a fully automatically application gantry, also in view to health & safety, job-site traffic and application performance



1. Fully automatic gantry
2. Primary shotcrete lining
3. Reinforcement & cast-in-place concrete gantry