

E4 FÖRBIFART STOCKHOLM AMBERG TUNNELSCAN

Delivering Laser Scanning Efficiency for Stockholm's Tunnels



Key Solutions and Advantages at a Glance:

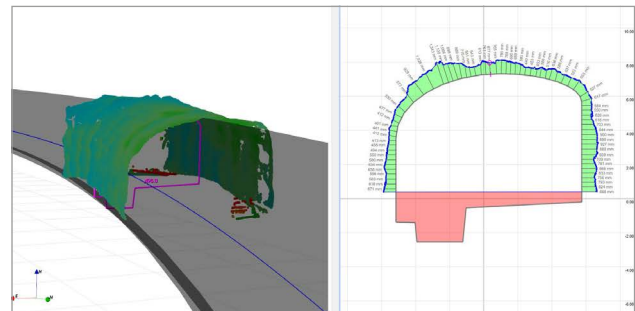
- Managed complex tunnel geometry and extensive scanning.
- Expedited data processing and reporting.
- Streamlined workflows with Amberg Tunnelscan.
- Reduced data handling efforts by over 40%.
- Lowered project costs; enhanced team motivation.
- Achieved efficient, swift documentation.
- Comprehensive tunnel surveying solution.

THE AMBERG TUNNEL SOFTWARE IN ACTION ON THE STOCKHOLM BYPASS

Förbifart Stockholm is set to connect the northern and southern parts of the capital, alleviate city centre congestion, and enhance the resilience of Stockholm's traffic system. This pivotal infrastructure project, once completed, will feature one of the world's longest motorway tunnels.

Designed within a Building Information Modelling (BIM) environment, the tunnel complex includes main passages, crosscuts, ventilation shafts, and access tunnels. The "FSE305 Bergtunnlar Lovö" section, noted for its intricate geometry, presented significant surveying challenges. The main hurdle has been processing the extensive data collected and delivering timely reports.

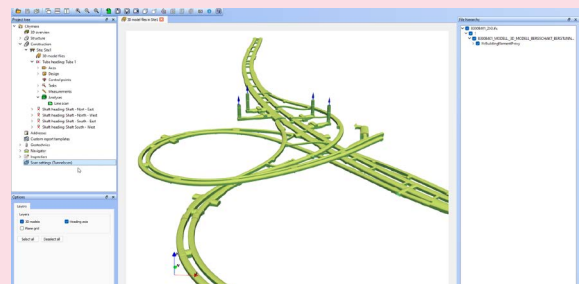
Traditionally, Swedish tunnel surveyors juggled multiple local software platforms, leading to significant inefficiencies. Amberg Tunnelscan, a key component of the Amberg Tunnel software suite, revolutionises this process by focusing on tunnel-specific challenges. The software supports direct data import from scanners, provides robust tools for georeferencing and data cleaning, and organises scans systematically. Users can efficiently generate tailored analysis and reports directly from the platform.



Amberg Tunnelscan delivers precise deviation analyses quickly, with results available in 2D and 3D formats and exportable in various file types.

E4 Förbifart Stockholm

- Western Stockholm Bypass with six connections
- Total length: 21 km, 18 km of tunnels
- Construction: 2016 - 2030
- Costs: SEK 41.7 billion (~€3.7 billion)



Two main tunnels, access ramps as well as numerous shafts and cross-passages of the Lovö section loaded to Amberg Tunnel.



Ulf Sjöström
Survey Operations Supervisor

"With Amberg Tunnelscan, merging and analysing data from diverse sources has become seamless and efficient. The software significantly outperforms others in cleaning and processing 3D laser scans—tasks that were previously

error-prone and labour-intensive. This has not only saved time but also reduced our workload by over 40%, leading to substantial cost savings. My team appreciates the integrated functionality of this platform, which eliminates the need for cumbersome data transfers."