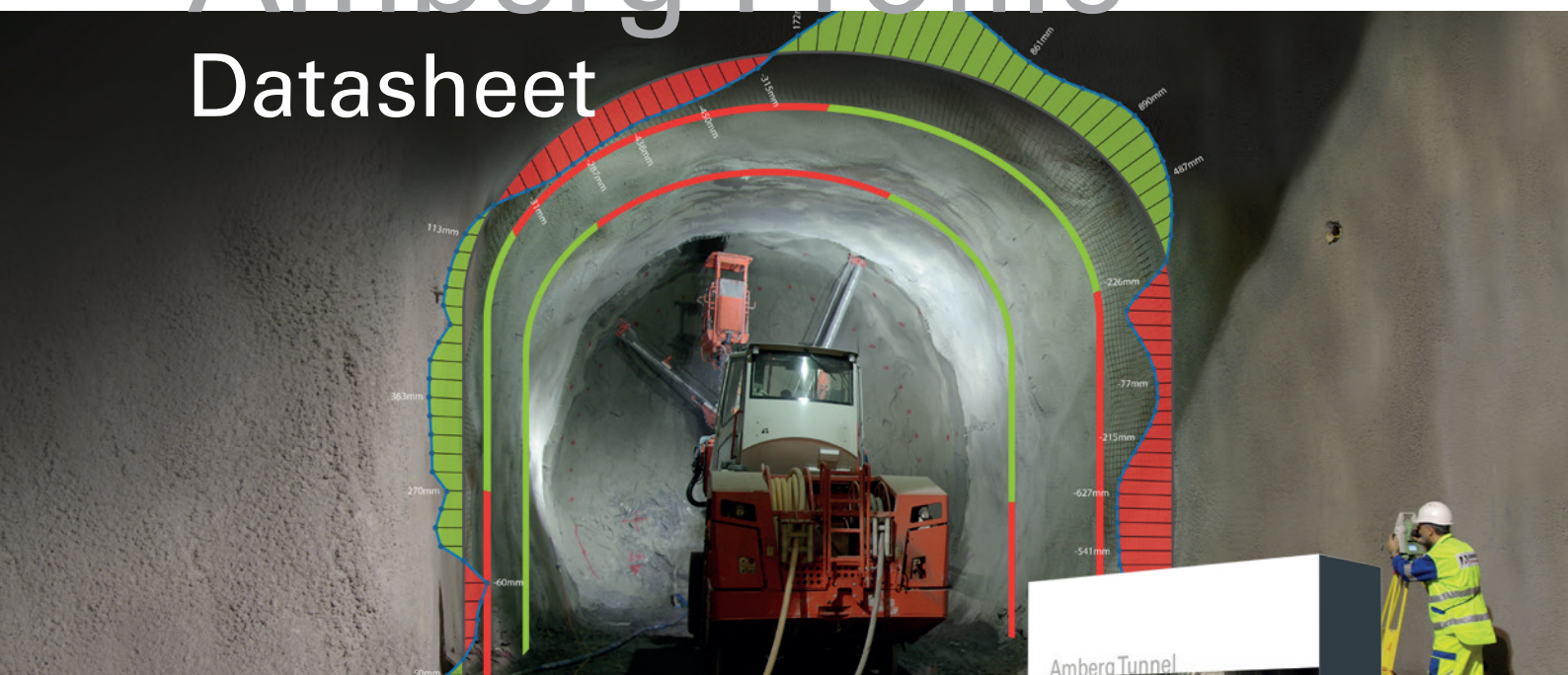**AMBERG TECHNOLOGIES**

Amberg Profile
Datasheet

Analysis has never been so easy!

The Amberg Profile office software is able to transform the measurements from total stations into reports tailored to meet your needs. A seamless workflow is guaranteed by using Amberg Navigator or Amberg Applications for making the measurements. This ensures trouble-free data transfer of measurements from the tunnel into the office, but also vice versa (e.g. for layer thickness analysis).
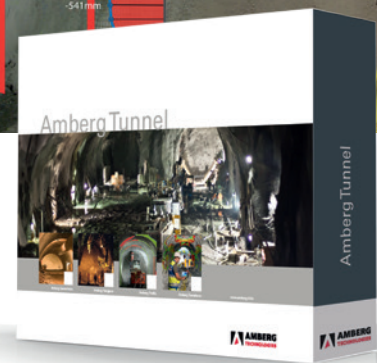
Features
- Visualization of the results in 3D for fast interpretation
- Flexible report generation based on project-specific requirements
- Independent of the measurement instrument thanks to a flexible interface and support of many standard formats
- Fully integrated work procedure and data flow with Amberg Navigator and Amberg Applications
- The software package is tailored to your needs in terms of profile analysis during tunnel construction
- Transforms profile measurements into relevant reports quickly and easily
- Export profile measurements to mesh for a smooth data transfer to BIM platforms
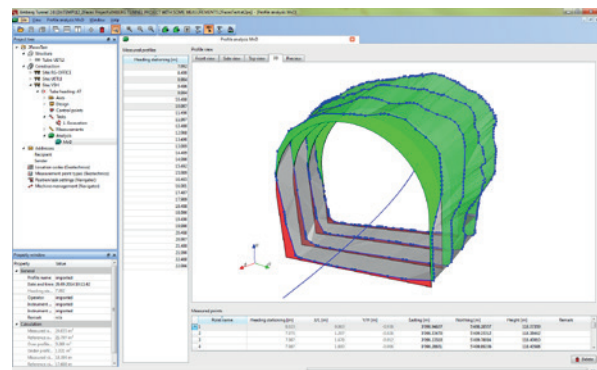
Amberg Profile
System Overview

Basic functions and features		
Software solution for Windows 7/8.1/10		
The software is intuitive, reliable, user-friendly and attractively designed		
Manage construction projects and tunnel maintenance projects in a single system		
Comfortable and interactive project data input with direct graphical visualisation		
Automatic project data consistency testing on input		
Intermediate point calculation, axis-related point projection (2D / 3D) for independent project data control		
Flexible ASCII import of coordinates for computing the axis		
Define several project axes using elements for horizontal and vertical alignment		
Comprehensive support for the import of project data (e.g. Cremer, LandXML, DXF or ASCII)		
Project-specific adaptation of units (e.g. meters, international and US feet) and the display of decimal places		
Unlimited number of construction stages consisting of theoretical profiles, section definitions, transverse slope and block definition		
Define theoretical profiles vertically or inclined relative to longitudinal profile		
DXF, Leica LandXML and TUN (SBG) interface for theoretical profiles (e.g. DXF importing profiles from TMS Office 1.0)		
Comprehensive profile editor for simplifying routine tasks (blow-up function, mirroring, drag and drop, split, etc.)		
Support for transition zones between various profile geometries (linear or centroid-based interpolation)		
Graphical visualisation of project geometry data in the 3D viewer		
Integrated address management for personalised reports (e.g. contractor or client)		
Amberg Tunnel supports all underground projects, even with heavily inclined tunnels (e.g. hydropower projects)		
Amberg Tunnel also supports vertical shafts		
Management of the control points for each drive, including a time history		
Functions for profile measurement analysis	**Basic**	**Plus**
Automatic data synchronization with Amberg Navigator Tablet for trouble-free data transfer	✓	✓
Import of data from any type of ASCII file for quick access to measurement data	✓	✓
Import of data from Amberg ProScan Plus measurements (*.dbx) for trouble-free import	✓	✓
Profile extraction from point clouds (*.pts, *.xyz, *.sdb Leica MultiStation, *.zfs, *.fls, *.pcd, *.las, *.laz)	✓	✓
Management of measured profiles for each construction stage	✓	✓
Display of the block information for every profile	✓	✓
Repositioning of measured profiles based on updated control point coordinates (for Amberg Navigator or Amberg Applications data)	✓	✓
Export of measured profiles in text or DXF format	✓	✓
Unlimited number of profile measurement analyses	✓	✓
Analysis of measured profiles in comparison to the design data	✓	✓
Project-specific reports allowing many settings for calculations and display	✓	✓
Exclusion of areas using cross-section lines and section angles	✓	✓
Calculation of the center point of a circle (smallest squares) for the measured profiles	✓	✓
2D and 3D views of the profiles for a quick interpretation of results	✓	✓
Generation of tabular and graphical reports from analyses	✓	✓
Management of customer-specific report templates	✓	✓
2D and 3D export of profiles to DXF	✓	✓
3D export of horizontal or vertical cutting planes to DXF		✓
Export measured profiles to mesh as *.obj and *.ply files for a smooth data transfer to a BIM platform		✓
Analysis of measured profiles as compared to measured profiles of a second construction stage (e.g. layer thickness analysis)		✓
Analysis of geological overbreak for TBM or drill and blast heading (according to the Swiss SIA 198 standard)		✓

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