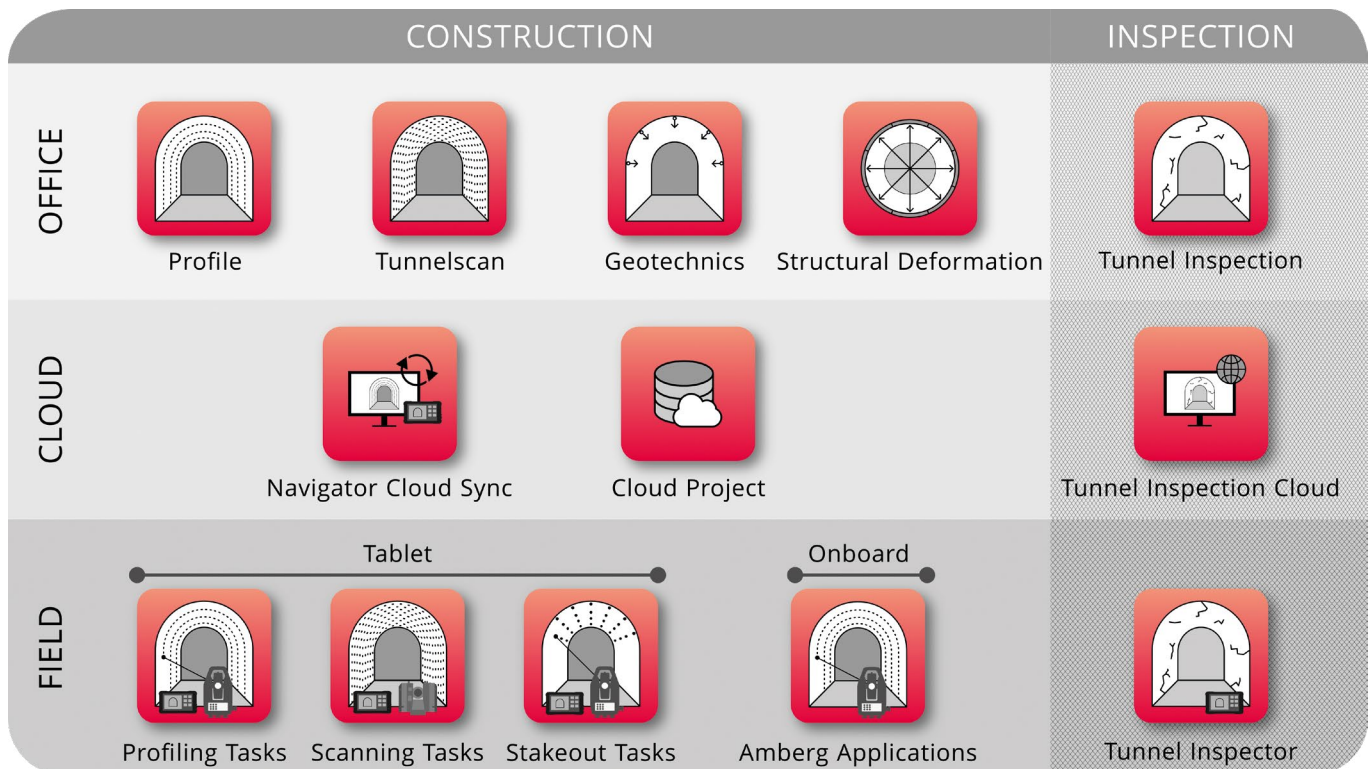
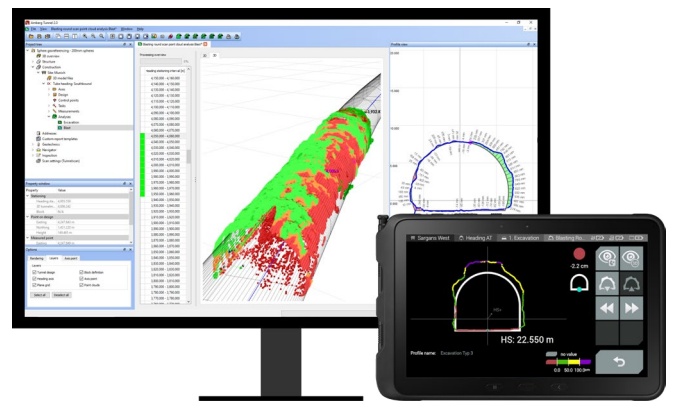




SIMPLE AND EFFICIENT DATA PROCESSING & REPORTING WORKFLOW

Amberg Tunnel office and field software offers a comprehensive solution for streamlining and optimizing tunnel surveying activities. The intuitive field software allows tunneling crews to perform repetitive surveying tasks with ease and confidence, freeing up site surveyors to focus on more complex tasks. The office software facilitates effortless processing and reporting, ensuring you stay in control of your daily tunnel surveying activities and deliverables.



OFFICE

Amberg Profile	BASIC	PLUS
Profile analysis: Measured vs design	✓	✓
Profile analysis: Measured vs measured		✓
Profile analysis: Circularity		✓
Profile analysis: Geological overprofile		✓
Export: As-built mesh		✓
Export: As-built horizontal and vertical cut lines		✓
Export: As-built 2D and 3D profiles (DXF)	✓	✓
Export: Volumes, overbreak, underbreak (ASCII)	✓	✓
Export: As-built profiles (PDF report template)	✓	✓
Amberg TunnelScan	BASIC	PLUS
Point cloud analysis: Standard measured vs design	✓	✓
Point cloud analysis: Blast scan measured vs design (smart filter)		✓
Point cloud analysis: Measured vs measured		✓
Point cloud analysis: Undulation (surface smoothness)		✓
Point cloud analysis: High resolution image		✓
Point cloud georeferencing: Checkerboard & sphere targets		✓
Point cloud georeferencing: Amberg Positioning Method (APM)	✓	✓
Point cloud georeferencing: Cloud to cloud		✓
Point cloud cleaning and filtering toolset	✓	✓
Export: Colorized point cloud, unified point cloud (LAS, PTS)	✓	✓
Export: Volumes, areas, deviation map (PDF, ASCII)	✓	✓
Amberg Structural Deformation		
Profile analysis: Ovality		✓
Profile analysis: Internal horizontal, vertical & diagonal diameters		✓
Profile analysis: Horizontal and vertical clearance from design centerline		✓
Profile analysis: Crown and invert elevations		✓
Profile analysis: Best-fit ellipse & best-fit circle		✓
Profile analysis: Robust outlier removal (non-tunnel wall points)		✓
Profile analysis: As-built centerline vs theoretical centerline		✓
Export: Excel (all calculations)		✓
Export: DXF (layered)		✓
Amberg Geotechnics	BASIC	PLUS
Profile analysis: 3D convergence (cross section)	✓	✓
Profile analysis: 3D convergence (longitudinal)		✓
Profile analysis: Sensors (1D)		✓
Export: ASCII, DXF	✓	✓

FIELD

Amberg Navigator Tablet
Total station: Leica Viva, Nova, & 1200 series (instrument requires GeoCOM robotic)
Laser scanner: Leica RTC360, BLK360, MS60 (requires GeoCOM scanning); FARO Focus; Z+F
Onboard App (Captivate)
Total station: Leica Viva & Nova instruments running Captivate