MOBILEMAPPING

High-speed surveying

AMBERG INFRA 7D

AMBERG MOBILEMAPPING
FAST. PRECISE. EFFICIENT.

The increasing demand of modern mobility are driving infrastructure networks to their limits. The often outdated constructional infrastructure is in desperate need of renovation. Closures for surveying are generally not possible or are too expensive.

No matter whether a subway, a freeway, or a mountain road, by day or by night, Amberg Mobile-Mapping offers perfect solutions for fast and trouble-free data acquisition of the surrounding objects as well as for profitable analysis of the data.

Minimal interruption of traffic – Reduce costs and annoyance

Whether on tracks, on the street, in tunnels or airborne – Amberg Infra 7D offers the right solution for every measurement requirement using special proprietary systems and cutting-edge technology.

The outstanding measurement capabilities of the kinematic measurement systems allow execution with little or no interruption of traffic flow. This reduces the operator's costs and is easy on the nerves of all traffic participants.

One measurement – Greatest possible value Efficient. Convenient. Cost-effective.

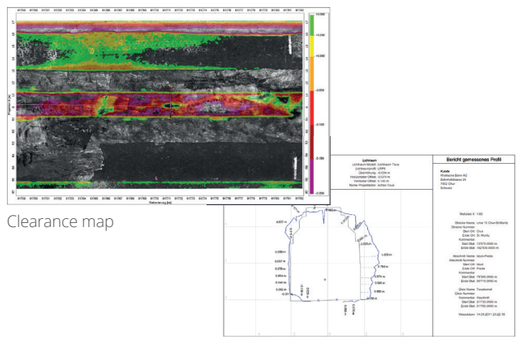
Efficient and modern acquisition methods are employed to gain full-coverage recording of the objects in a single pass.

Analyses based on this are versatile and nearly unlimited in scope. Instead of elaborate inspections and field measurements, the subsequent work can be done conveniently and economically in the office.

Every centimeter counts – Project optimization through data refinement

The 3D data captured at high resolution and with great precision enables detailed evaluation of the clearance conditions. Thanks to high-quality clearance analyses using the Amberg Rail software, the work procedures of engineering offices can be simplified, project variations can be optimized and costs can be saved accordingly.

- **Dynamic clearance analyses / «true clearance»:** Get even closer to actual reality thanks to the latest software developments.
- Clearance maps with color-coded encroachments
- Profile reports (PDF and DXF)
- Volume calculations
- Point clouds



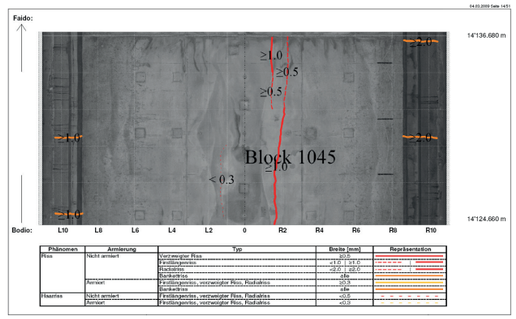
Clearance map

Profile report

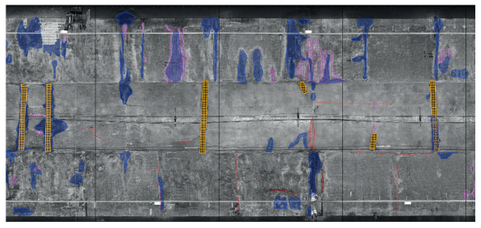
Don't risk a collapse – Safety through full-coverage inspection

The inspection is based on high-definition image data and documents the condition of the infrastructure object with clarity. Changes that occur in the object are visualized with certainty in the TunnelMap™ software thanks to standardized visualisation and phenomena catalogs.

- Inspection plans with damage phenomena
- Damage report
- Statistics



Crack report for conservation of evidence



Detail of an inspection plan

Secure your evidence today – Save yourself trouble tomorrow

Construction work can cause damage to existing structures. Professional and unbiased conservation of evidence protects you from unjustified claims.

- Documentation of the current state (image and photo documentation)
- Crack mapping
- Unbiased report

Minimize project risks – Planning based on reliable data

Certainty instead of estimates – Base your project on precise and reliable data and avoid unpleasant surprises.

- Digital terrain model
- Inventory of existing conditions (buildings, track surveying, sewers)
- Orthophotos

MobileMapping data viewer: Online tours from the office

SYSTEMS AT A GLANCE

The customer's requirements (accuracy, closure times, speed, etc.) determine the selection of the measurement system and the sensors. Amberg MobileMapping systems stand out due to their versatility and flexibility. The latest in modern technology in combination with innovative software ensures efficient measurement operations and high-quality results:

- **Laser scanner:** The newest generation allows the acquisition of > 1 million data points/second with millimeter accuracy.
- **Inertial measurement system (IMU):** These high-end sensors allow precise measurements even at high speeds (up to 80 km/h).
- **Camera:** Calibrated multi-camera systems for image-supported surveying (e.g. airborne) or as a complement to laser scanning.
- **GNSS:** Satellite-supported navigation for unmanned aircraft or for precision referencing of measurement runs.

Amberg GRP 5000

- Rail systems
- Subway systems
- Tramways and light rail systems

Airborne Mapping
(UAV / Helicopter)

- Infrastructure installations
- Natural hazards
- Traffic routes

Amberg MISS

- Tunnels (road or other)
- Roads

Amberg MMS

- Roads
- Rail and subway systems
- Tramways and light rail systems

Amberg MINI MISS

- Sewers
- Galleries
- Caverns

Segments

Railroad · Tunnels · Road · Sewer

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