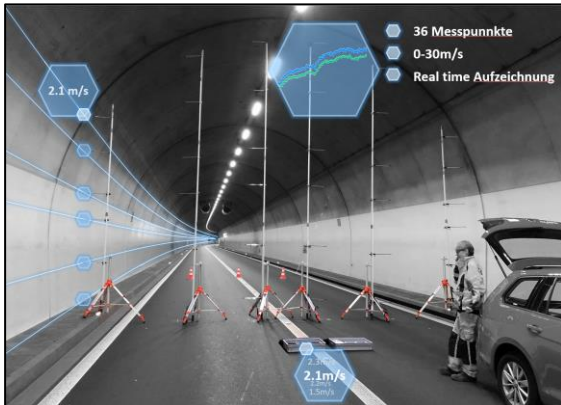
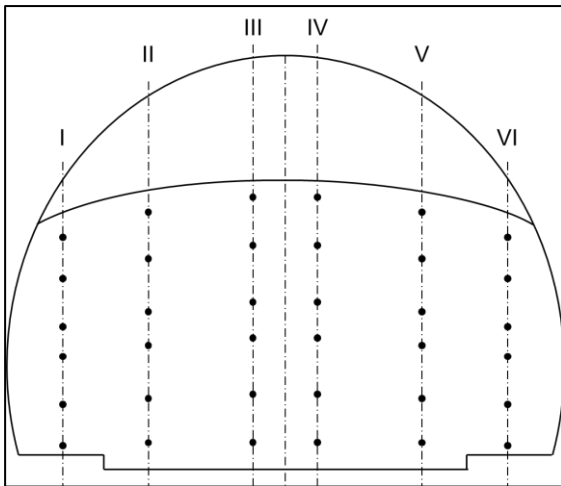




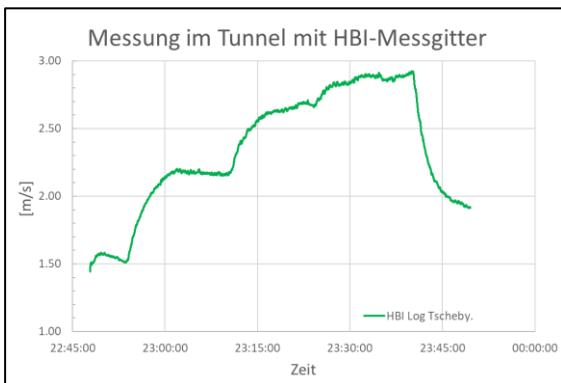
Service: Air velocity measurement in the tunnel tube



HBI measuring grid: Digital recording of the air velocity in the tunnel according to ISO-5802



Example of a 6x6 Log Chebyshev distribution of measuring equipment in a rectangular profile according to ISO-5802



Grid measurement with the HBI measuring grid: Records of the air velocity for different ventilation settings.

The measurement and regulation of the air velocity in road tunnels is a central issue for the safety of tunnel users, especially in the event of an incident. Therefore it is necessary to perform measurements to define specific corrective factors and to consider the installation situation of the airflow measurement equipment installed in the tunnel.

For these measurements, HBI Haerter has developed a measuring grid which measures the air velocity in the tunnel tube with high precision.

Measurements according to ISO-5802 are carried out with this HBI measuring grid. Using 36 hot-wire anemometers, the air velocity is simultaneously recorded at measuring points that are distributed over the cross section (sampling frequency 1 Hz). By taking the cross sectional area into account, the volume flow and the corrective factors for the airflow measurement equipment can be determined.

The HBI measuring grid is easy to handle and can be quickly applied. Auxiliary equipment such as lifting platforms and power connections can be omitted. No tunnel interventions are required to fix the grid.

Our services

- Organization and performance of the measurements
- Proof of air velocities in the tunnel tube
- Verification and determination of calibration factors of the airflow measurement equipment
- Proof of exhaust air quantity as well as leakage measurements
- Analysis and interpretation of data
- Consultation in case of non-achievement of planned values and actions to be taken
- Creating the documentation