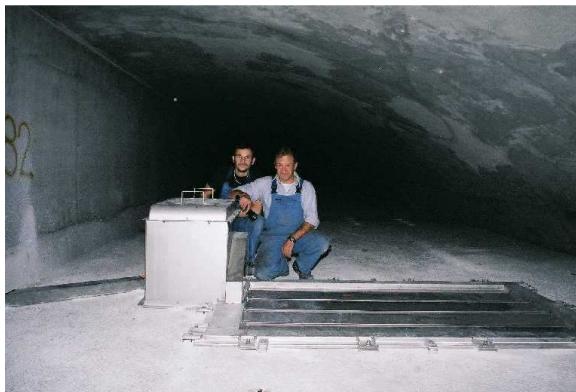




Construction of jet fan niches in the false ceiling



Installation of the last smoke damper



Tunnel portal Vue-des-Alpes

Description

The Tunnel Vue-des-Alpes is a single tube tunnel used for bi-directional traffic. The tunnel length is 3,250 m with a maximum gradient of 2.5 %. Egress in case of emergencies is only possible through the tunnel portals. The original tunnel ventilation system consisted of two sections of semi-transverse ventilation. The overhead ventilation ducts allowed fresh air supply through secondary ducts at road level and from slots in the false ceiling. In case of a tunnel fire, the air flow in one ventilation duct was reversed, so smoke was extracted in one ventilation section through the openings in the false ceiling. The new ventilation system is of fully transverse type with a fresh air duct and a designated exhaust duct. For local smoke extraction, remote controlled dampers have been installed. Additional jet fans have been installed that allow a closed-loop control of the longitudinal air flow in order to support the smoke extraction.

Services

- Assessment of initial state of the tunnel and ventilation system incl. axial fans, control and monitoring system
- Evaluation of operator's experience and data
- Immediate measures for increased tunnel safety, optimisation of ventilation control, improvement of axial fans
- Tunnel Ventilation Concept and Detailed Design for normal operation and smoke management: egress- and rescue concept, additional jet fans, modification of existing axial fans, remote-controlled smoke dampers
- Inter-disciplinary optimisation: construction, M&E and ventilation
- Control System Functional Description
- Tender documentation and procurement
- Negotiation with contractors
- Construction supervision, coordination with M&E and civil construction
- Commissioning of dampers, fans and control system, integral tests