

Ventilation & smoke extraction system for parking garage in Thun's Schlossberg Hill

Fresh air and smoke protection in Thun's Schlossberg Hill



No longer a shortage of parking spaces. That is the goal of the City of Thun and Parkhaus Thun AG with the construction of Parking City Ost Schlossberg. The construction of this car park is essential for Thun, because the city centre has suffered a shortage of parking spaces for years. However, since there is no space for an additional parking garage within the city area, resourceful minds came up with the idea of building it inside the Schlossberg, beneath the landmark of Thun Castle. Cutting, concrete pouring and installing has continued since 2016. The result is 2 caverns and an access tunnel for 300 parking spaces on 7 levels with a total area of 11,900 m².

Client
Parkhaus Thun AG / City of Thun

Contractor
ARGE Marti Schlossberg

Created
2016- 2018





Ventilation and smoke extraction system

- 2 supply air fans
- Positive pressure ventilation
- Smoke extraction system
- Covers
- Floor hatches
- CO system



The systems primarily consist of:

A ventilation system for parking garage operation (CO ventilation) - the main components here are 2 supply air fans underneath the pedestrian access from the historical centre of Thun. Positive pressure staircase ventilation - in the event of a fire, the emergency stairway is kept smoke-free, enabling escape from the parking garage. Smoke extraction system consisting of supply air fans, an exhaust fan, dampers and ducts. In the event of a fire, this system will exhaust the smoke from the parking garage, enabling both escape from the parking garage and fire brigade intervention. Additional system components such as covers and floor hatches required for underground access.

- 1 CO system exhaust fans
- 2 View of the pre-assembled smoke extraction collector duct
- 3 Smoke extraction dampers and duct in the parking deck
- 4 Parking deck with supply air duct