

# Extension Dossenhütte SAC, Innertkirchen

2010

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The 111-year-old Dossenhütte (SAC) stands on a rocky outcrop between Engelhörnern and Dossenhorn in the Bernese Oberland at 2663 meters above sea level.

## The project

The concept of the SAC hut was revised. Thus, a modern, two-story extension with kitchen, technical and sanitary rooms complements the original building, which was also rebuilt. By means of blasting, several cubic meters of rock had to be removed first, after which the strip foundations were fixed with rock anchors. Insulated ribbed slab elements were laid on top of this as the floor structure, which is ventilated in the area of the strip foundations. The floor slab was prefabricated as box girder elements. The flat roof construction was of glulam, and the walls were of timber frame construction.

## The construction

Planning and calculation of the hut were linked to requirements. The SAC members, for example, wanted to perform hours of voluntary service. Therefore, the project had to be as simple as possible. Since the elements were transported by helicopter, the parts had to be as light as possible and quickly assembled.

## The challenge

A major structural challenge was posed by the weather conditions. Due to the exposed location, unusually high wind forces had to be absorbed and anchored in the foundation. High snow loads and possible ice formation also had to be taken into account.



The original Dossen hut



Fundamente



Shell



The hut with extension

#### Construction Data

- Structural timber 32 m<sup>2</sup>
- three-layer boards 360 m<sup>2</sup>
- Facade cladding 250 m<sup>2</sup>

#### Services of Timbatec

- SIA phase 31 preliminary project
- Cost estimate
- SIA Phase 32 Construction project
- Structural analysis and design
- SIA Phase 51 Implementation project
- Technical site management and site inspections

#### Architect

BSR Architekten AG  
3000 Bern 25

#### Timber Construction Contractors

Hector Egger Holzbau AG  
4900 Langenthal

#### Timber construction engineers

Timbatec Holzbauingenieure Schweiz AG, Thun  
3600 Thun

#### Owner

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4900 Langenthal