Connecting bridge Thommen Furler, Rüti bei Büren, Bern

2012

A pipeline bridge had to be designed for the transport and filling of the chemicals from the storage facilities via the warehouses to the railroad tracks, which would withstand the high demands of the chemicals such as acids and alkalis.

The project

Compared to steel, wood is a building material with high resistance / insensitivity to aggressive influences. Likewise, due to the already existing storage halls and accessibility, the lowest possible dead weight had to be ensured. The wooden structure of the bridge spans four support points made of reinforced concrete. These are arranged at intervals of max. 20 m.

The construction method

The total length of the bridge is 60 m including an overhang of 6 m for filling the tanks above the railroad tracks. The supporting structure was elementalized and prefabricated from spruce glulam girders (BSH) with surrounding timber frames in the plants of Stuber & Cie AG and Holzbau Moosmann AG. These bridge sections were assembled above the warehouses using a mobile crane. The "interior work" for the piping of the individual acids and alkalis inside the bridge was started after the bridge sections had been joined together. Finally, the prefabricated exterior wall cladding was installed.

Bridge section 2

Bridge section 1-4

Pipe routing

Filling from track

Construction Data
- Spruce glulam
- Beam Total length 60 m

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- cost estimate
- Fire protection planning
- SIA Phase 32 Construction project
- Structural analysis and design
- SIA Phase 41 Tendering and comparison of offers
- SIA Phase 51 Implementation project
- Site management and site inspections

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