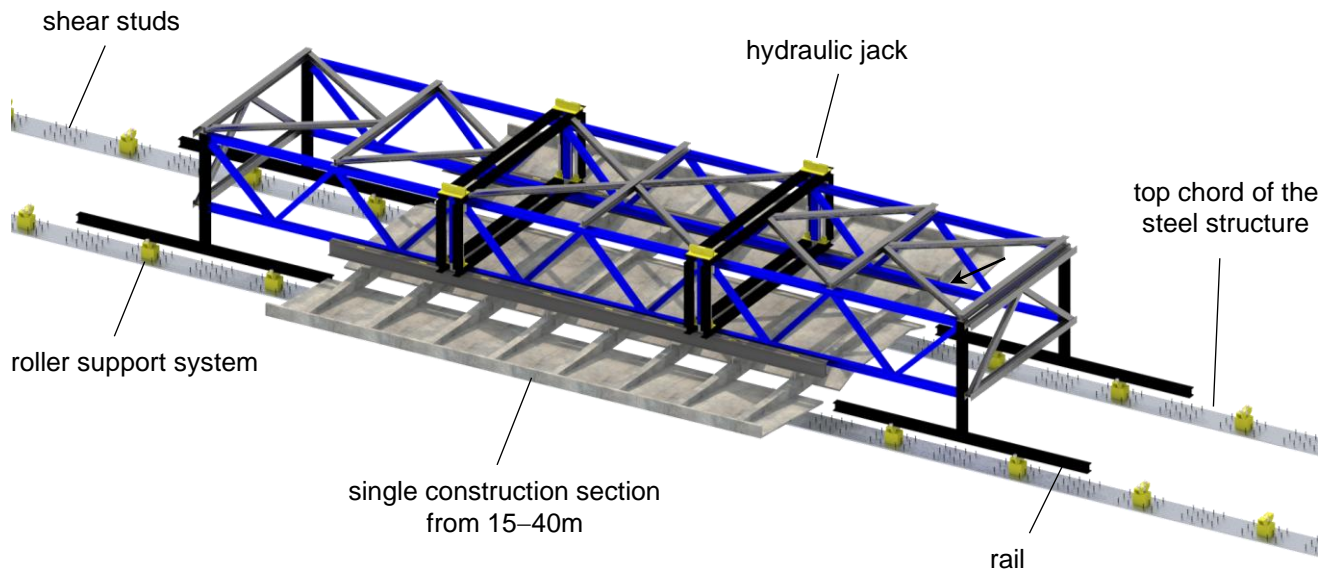


FAST DECK SLAB CONSTRUCTION

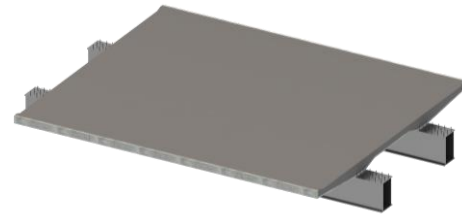


▲ Case study for the construction of a deck slab section on a daily cycle

A new method developed at TU Wien enables the rapid construction of deck slabs for steel-concrete-composite bridges. Thin-walled, precast deck slab elements are placed on the steel girders with the aid of an installation carriage. The deck slab elements are equipped with cross beams that can support the weight of the precast elements and the in-situ concrete layer. Most of the deck slab reinforcement is already contained in the deck slab elements. Before transporting the deck slab elements from the abutment to the installation site, the top longitudinal reinforcement is placed. Only the continuity reinforcement remains to be placed at the construction site itself. The placing of the continuity reinforcement and concreting of the top layer is independent of the transport of the deck slab elements. Therefore, a section of 15 m to 40 m can be produced per day.



▲ Deck slab elements after being placed on top of the steel girders



▲ Deck slab elements after placing of the in-situ concrete

ADVANTAGES

- Faster construction of deck slab for steel-concrete-composite bridges than with a formwork carriage
- Few reinforcement laying operations on the construction site
- Cost-efficient due to the use of industrially produced precast deck slab elements
- Continuous deck slab because of continuity reinforcement and in-situ concrete layer

PATENT STATUS

- PCT/AT2021/060100

COOPERATION POSSIBILITIES

- Project based cooperation
- License agreements

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