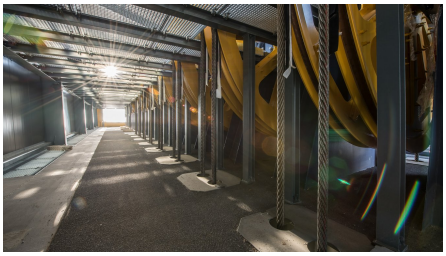
Niederfinow ship lift









SHORT DESCRIPTION

Construction of a new ship lift to overcome the 36-metre altitude difference in the Oder-Havel canal.

THE PROJECT

The new ship lift at Niederfinow uses a suspended steel trough, which functions in a similar way to a lift, to enable boats to overcome the 36-metre altitude difference in the Oder-Havel canal. It is designed as a vertical lifting mechanism with a counterweight. The water-filled trough uses heavy concrete and steel weights to reach an equilibrium, with the suspension rope being diverted over 224 rollers on two hollow steel box girders.

From the west, boats travel through the upper part of the outer harbour and across the canal bridge to the trough, which is at its uppermost position. Once the western gates have been closed, the trough moves down to its bottom position. When the eastern gates are fully opened, the boat can exit the lift. When travelling from the lower to the higher water level, the process is reversed.

Watch video

SERVICES IN DETAIL

- Project management
- Planning management
- Solid structure execution planning
- Deformation calculations
- Concrete and reinforced concrete works
- Hydraulic steel works
- Fitting out

CHALLENGES

- Compilation of the plans for all sub-sections to create an overall system that satisfies the requirements of the Machinery Directive 2006/42/EC (CE conformity)
- Calculation of deformations of the solid structure due to subsequently applied loads, taking temperature and long-term effects into consideration
- Extremely narrow manufacturing tolerances in order to ensure that the system works as a whole

FURTHER INFORMATION

Umbrella joint venture for new ship lift in Niederfinow

- Technical management: Implenia Civil Engineering GmbH, Berlin branch (36% stake), Project Manager: Carsten Genetzke
- Commercial management: DSD Brückenbau GmbH (29% stake)
- Jh. Bunte (30% stake)
- SIEMAG TECBERG (5% stake)

An umbrella joint venture was set up for the project, with an internal relationship based on separation between the consortium partners. The partners are responsible for the planning, execution and guarantee of their own services.

FACTS

Location	Hebewerkstraße 58, Niederfinow , Germany
Status	completed
Construction volume (value of our services)	130 M EUR
Start of construction	May 2008
Completion	September 2022
Contracting entity	Bundesrepublik Deutschland vertreten durch Wasserstraßen-Neubauamt Berlin
Planning	Entwurf: Wasserstraßen-Neubauamt Berlin; Ausführung: die ARGE-Partner für ihre Leistungen
ARGE	✓
Concrete volume	66289 m^3
Reinforcement	10100 to

Height	54.55 m
Length	133 m

SERVICES

- Civil engineering
- Concrete construction
- Shipping transport infrastructure
- Structural engineering

https://implenia.com/en/references/detail/ref/ship-lift-niederfinow/

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