Swing Bridge in Trondheim

Elegant and Functional Architecture executed in the Highest Quality

Swing Bridge for Norway

In October 2014, the Norwegian National Highway Authority opened a new swing bridge over Skansløpet in Trondheim. “Swing bridge” is a pedestrian and bicycle bridge that connects the neighbourhoods Ila and Brattør in Trondheim, Norway.

Bladt Industries’ part of the project comprised manufacturing, delivery and commissioning of the steel swing bridge itself. The delivery comprised a 45 metres long and 205 tonnes heavy asymmetrical swing span, two 30 metres long and 65 tonnes heavy connecting spans and all associated machine and hydraulic systems for the yawing, centring and locking of the bridge.

Design and Dimensioning

The bridge structure was completely designed by the client’s consultant, while the design and dimensioning of all yawing, machine and hydraulic systems were included in Bladt Industries’ part of the delivery. The systems were based on operational requirements and, therefore, the design and dimensioning activities also included greater dynamic analysis of the load impacts on the bridge subsystems during opening and closing operations.

“Modern and elegant architecture is often equated with complex geometries and technical innovation. But with our experience from several comparable bridge projects, we in Bladt Industries had no concerns about accepting the assignment and the Swing Bridge project demonstrates that we possess the necessary “in house” competencies and qualifications to design, build and commission technically and architecturally complex bridge projects.”

Bjarne Bach Nielsen, Responsible for Design, Bladt Industries

Completed in just 13 Months

Although the bridge steel structure had an extremely complex geometry, where, for example, none of the individual elements were identical and there were corresponding challenges in connection with the construction of the mechanical and hydraulic systems. The project was carried out in only 13 months and all of the time schedule’s intermediate and final deadlines were observed.

Close Cooperation brings Success

From the start, close and constructive cooperation was established between the client, the client’s consultants and contractors, which also contributed to the successful conclusion of the project.

Since delivery, the bridge has had several daily opening frequencies and complied with all the operating and performance data.

Previous Bridge Projects executed by Bladt Industries for Norway

- Closed Walkway, Langenes Trade Park, Tromsø
- Upper Sund Bridge, State Vegvesen (the Norwegian National Highway Authority), Drammen
- Drawbridge, Norwegian Vegvesen, Trondheim
- Dock Bridge, Kristiansand Port, Kristiansand
- Gangway, Risavikker Port
- Gangway, Bergen Harbour Authority
- Ferry Draw Bridge, Kristiansand Port
Swing Bridge is today one of Trondheim’s attractive and spectacular landmarks – designed by one of Norway’s leading architectural firms.