



DLB-DUB HARBOUR BRIDGE

AN ELEMENT WHICH SHAPES BOTH THE CITY AND THE LANDSCAPE



Pre-assembly axis 2



Longitudinal launching

166 m in length, the new single-track railway bridge built by MCE is the central link between the Donaulände (DLB) and the Donauufer (DUB) railway lines in Vienna.

The design is distinguished by its high degree of readability, comprehensibility and its light and dynamic appearance. The differentiation between the area across the Danube Canal and that across the Winterhafen is deliberate. The engineering, fabrication and assembly of the steel bridge took place in several stages and constituted a major challenge to structural engineering. The main steel structure is a two-span continuous girder with a span of 91.5 m across the Danube Canal and 74.5 m across the Winterhafen. The two spans have been expressed using different forms (triangular trussed girders across the Danube Canal and a flat trough bridge across the Winterhafen).

The bridge is an element which shapes both the city and the landscape and special attention was paid to its design and to the quality of construction. In a longitudinal direction the steel construction was

divided into 7 sections of between 21.6 m and 23.9 m in length. The largest transported width of a component was 5.7 m. In total 51 individual components with a shot weight of between approx. 3 tonnes and approx. 84 tonnes were necessary for the Winterhafen Bridge. The assembly was carried out using a method introduced by MCE. The entire steel construction was assembled in stages behind the abutment on the new embankment and subsequently slid over the Danube Canal and the Winterhafen. The entire bridge had to be lowered about 3.5 m into its final position.

On 01.09.2008, during the official opening of the Freudenufer terminal, the load tests were carried out using 3 load positions. The 7 Taurus locomotives which were used were decorated in the colours of the nations taking part in the EURO 2008.

The bridge across the Winterhafen is an excellent example of the opportunities offered by steel bridge construction in the 21st century.

Facts & Figures:

Steel weight:	2,000 t	Construction:	Truss girder bridge and trough bridge
Length:	166.00 m	Customer:	ÖBB Infrastruktur AG
Width:	9.00 m	Construction period:	2007- 2009
Steel quality:	S 355NL, S 355N, S 355 J2G3		

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