



Demountable flood defence system Linz/Austria on the Danube



Since the start of 2007, the Alt-Urfahr West district of Linz has been protected from a Danube flood level of up to 9.90 metres. Compared to its normal level of around 3.90 metres, in August 2002 the Danube reached a level of 8.20 metres. The result was that the residential area was in parts flooded by up to 1.70 metres. In September 2002 Linz town council decided to draft and implement a new flood defence plan. Mobile barriers around 940 metres long spread out to cover a surface area of approx. 2,250 square metres. With posts spaced 3.0 metres apart the number of posts results at some 310 pieces.

The main post height amounts to 2.5 metres. Up to a post height of 2.75 metres the post constructions are built freely protruding, i.e. without buttressed back support. The maximum post height in a street area amounts to 3.30 metres. The bracing elements between the posts, the so-called dam beams, are 100 millimetres wide and 250 millimetres high. Thus with only four dam beams efficiently stacked one on top of the other a defence height of 1.0 metres is already put in place. In order to set up the entire barrier surfaces, about 3,160 dam beams must be used.



2.50 m high posts are assembled by hand



In two construction stages a barrier height of 2.50 m is reached with only ten dam beams per section

Client: State Capital Linz on the Danube
Authorising Body: Federal State Government,
Department Water Management
Protection Height: HQ100 + 0,5 m Freeboard

Design Criteria: Hydrostatic Water Pressure
Heights: 1,2 m up to 3,3 m
Length of the defence line/Area: 940 m/2.250 m²