

## RAUTER Fertigteilebau GmbH.

Contact Wolfgang Rauter  
Address Niederwölz 71  
8831 Niederwölz, Austria

Phone +43 3582 8534  
Email w.rauter@rauter.at  
Website www.rauter.at



Our factory for precast concrete elements is located in Niederwölz/Styria (Austria).

During almost 60 years of development and taking into account the geographical location, the company has specialized in the production and, if required, the mounting of precast concrete elements and precast specialities (architectural precast) for all kinds of building and civil engineering projects.

The size of the company's premises is 35.000 m<sup>2</sup> with a total of 10.825 m<sup>2</sup> of factory buildings. The yearly turnover is around 10 million EUR, generated by an average of 90 employees.

The production facility consists of four factory buildings where all-season production in high quality is fabricated. A single element may weigh up to 32 t and have a length of up to 28 m.

500 m<sup>2</sup> of tilting tables are available for the production of slab shaped elements as well as 100 running meters of a steel formwork for the production of bar shaped parts.

Many different options regarding surface finishing and colouring are available.

Our wood shaper, with 5-axis technology allows precise and economic production of wooden moulds. You find selected examples of precast elements produced with such moulds on our web page.

The versatile and customized possibilities of the precast production allow fabrication at short notice and with on time delivery.

Our team of experts and sales representatives are always ready to develop the best technical and economical solution for our customers.



### Skywalk - glass-steel bridge, Vienna

#### Short Description

The Skywalk - emerging as winning project out of a two-step architectural competition is an enclosed glass-steel bridge.

The three-part bridge consists of concrete foundations with reinforced concrete columns, a steel structure and a glass enclosure. The bridge is 4.5 m wide, 11 m high and more than 120 m long, with a part of 10.5 m crossing through the pillar of the old city-rail viaduct.

The bridge crossing the Heiligenstädterstrasse provides a barrier-free connection between the Guneschgasse in the 19th district of Vienna and the station building Spittelau of the underground line U6/U4 in the 9th district.

#### Project Information

Owner: Stadt Wien  
Architect: Bulant & Wailzer  
General Contractor: Porr Projekt und Hochbau AG  
Engineering Office: n/a

Construction Start: 01/07/2006  
Construction End: 30/08/2007  
Location: Vienna, Austria



### Bridge for pedestrians and cyclists

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The bridge crossing the Heiligenstädterstrasse provides a barrier-free connection between the Guneschgasse in the 19th district of Vienna and the station building Spittelau of the underground line U6/ U4 in the 9th district.

Not only did this connection bring benefits to the users of public transport facilities, due to the structural

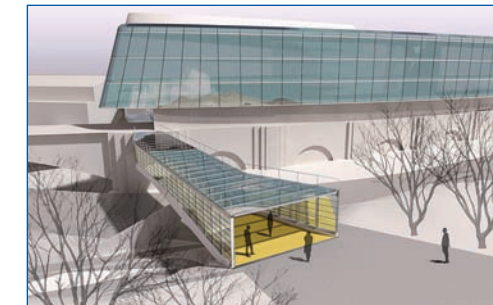
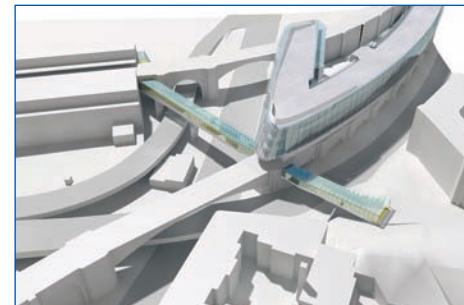
separation from the station building the bridge can be used around the clock by pedestrians and cyclists.

The bridge is reacting to this by changing its height and it's wideness in accordance of the necessary height over the crossing streets and the elements with them it is connected.

The bridge is completely glazed and naturally ventilated, as protection against different weather circumstances. The space is characterised by the elliptical steel frames of the supporting construction similar to a pergola.

The concept is strictly formed by 3 horizontal elements the concrete columns, the main construction in steel beams and the glazing, getting lighter to the sky. The interior space has a dynamic shape.

The main form was developed to be able to cross different other streets with the minimum headroom,



# Skywalk - glass-steel bridge, Vienna

by keeping necessary ramps of the floor useful also for handicapped people. The government of the municipality of Vienna sees in this project one of the important steps to support and promote the circulation in the city for pedestrians and bicyclists and to reduce the motorized traffic and its harmful pollutions.

The mould for the sophisticated structure of the columns was a new challenge for our team. At first glance the architectural drawings (elevations and sections) did not clearly show the actual shape of the columns.

The column, composed of triangular surfaces revealed its optical and volume related properties only after a model had been produced by the CAD-design department.

All data, derived from the 3-dimensional model was subsequently important information for the preparation of the offer.

## Dimensions of column

- Length: 13 m
- Cross section: 2.3 x 1.5 m
- Weight: 22 t

The two columns consist of around 3 metric tons of reinforcing steel and 18 m<sup>3</sup> concrete.

The transport was performed on time with company owned trucks over a distance of 233 km to Vienna. Due to the local traffic situation, the mounting of the columns had to be managed in a fixed time frame between 10 p.m. and 6 a.m.

Even though similar works had been carried out many times before by our team, it was additionally challenging since the whole operation took place during night hours. Long before traffic started again, our high-quality work was completed on time.

