

The Bavarian town of Inzell hosted the World Single Distant Speed Skating Championships 2011. To create the world-class competition conditions required for this event, the existing outdoor speed-skating track was upgraded through the construction of a high-performance intelligent roof structure. This improved arena can accommodate up to 7,000 spectators and offers maximum flexibility for large scale world class competitions as well as regular seasonal speed-skating training.

The 200 meter long and 90 meter wide arena was planned as an independent wide-span structure, free of interior columns. The athletes and spectators can enjoy panoramic views of the Bavarian Alps through the continuous glass facade which stands as a transparent band between the cloud-like roof and the concrete grandstands that flow into the landscape. At the same time, passers-by can look into the stadium interior and catch a glimpse of daily activities. The roof itself embodies a precisely

designed interior climate concept that

ensures optimized energetic, economic, and sustainable operation of the ice track on a daily basis. On the underside the roof is fitted with a "Low-E" membrane stretched between the lower cords of the ten-meter high timber and steel trusses. The function of this engineered fabric is to reflect the ice's own cold thermal radiation back onto the speed track, thus maintaining the low temperature of the ice surface. Simultaneously, this membrane maximises quantity of diffuse daylight that streams into the stadium through the roofs seventeen large north-facing skylights.

A number of existing support buildings were also upgraded in order to integrate them into the arena's overall concept of optimum energetic performance. They accommodate offices for the stadium director and the training staff, as well as workshops and spaces for the ice maintenance equipment. The major technical plants and extensive changing rooms are discretely located below the entrance concourse at the level of the ice field.

Client Gemeinde Inzell

Architect
Project partnership
Behnisch Architekten Pohl Architekten

Planning and Construction Process 2008–2011

GFA 20,000 m<sup>2</sup> / 215,000 sq.ft.

Volume 315,000 m<sup>3</sup> / 11,125,000 cu.ft.

Address Reichenhaller Strasse 79 83334 Inzell, Germany

Prizes World Sport Building of the Year, World Architecture Festival 2011, Barcelona

















