

DSI References



Reference Details

Owner Markt Garmisch-Partenkirchen, Germany +++ **Main Contractor** Bitschnau GmbH, Nenzing, Austria +++ **Design of the supporting structure** Mayr, Ludescher & Partner, Consulting Engineers, Munich, Germany +++ **Design and Conceptualization** loenhardt&mayr BDA Architects and landscape architects, Munich, Germany

DSI Unit SUSPA-DSI GmbH, LU South, Koenigsbrunn, Germany
SUSPA-DSI Scope Supply and installation of SUSPA Strand Tendons 15x0.6" type E-EP, supply, tensioning and grouting of 26 + 32mm Ø DYWIDAG Post-Tensioning Bars; execution of the pivoting procedure



Olympic Ski Jump Garmisch-Partenkirchen

The Olympic Ski Jump in Garmisch-Partenkirchen, in the South of the German federal state of Bavaria, is one of the most famous jumps in the world and has been an integral part of the international Vierschanzentournee (4 jump tour) since 1952. The traditional New Year's ski jump that is organized here is broadcast worldwide. In 2007, the jump was completely re-built because the old ski jump's profile no longer complied with the regulations of the international skiing association.


The K-125 Olympic Ski Jump is going to set new standards as a distinctive structure. The jump's front end is positioned 12m above ground and features a 100m long run up tower. Together with the arch-shaped landing platform, the front end forms a dynamic sculpture symbolizing the act of conquering gravity during ski jumping. The structure is covered with translucent poly-carbonate plates which transform themselves with daylight and illumination and turn into a glowing sculpture at night.

The new ski jump consists of approximately 1,000t of steel and fabricated metal. 18,000m³ of soil had to be moved and 1,200m³ of concrete poured into its foundation to make it stable. Stabilization was enhanced by 2,000m of piles and anchors. The maximum incline of the run up is 35°, with the jump's head being 144m above the stadium's floor.

Installation of the fabricated steel structure was carried out on the ground in a horizontal position. Once it had been coated and extended to a large extent, the 750t run up structure was pivoted around a bearing using SUSPA 15x0.6" (150mm²) Strand Tendons from its assembly position into its final position. The synchronized HOZ-3000 hydraulic jacks accommodated a total movement length of approximately 31.50m.

After erection, the run up was anchored into the jump-off-platform using 26mm Ø DYWIDAG Post-Tensioning Bars.

Construction work at this spectacular project began with the demolition of the old jump in April 2007, ending with the New Year's Jumps in 2008 only 8 ½ months later.

 more information please call: + 49.89.309050.200 or fax: + 49.89.309050.252 or e-mail: DSI Munich