



Miscellaneous

Reference Details:

Owner Sony and partners Tishman Speyer and Kajima +++
Structural design and project management Ed. Zueblin AG, Tiefbau +++
General Contractor JV Esplanade

DSI Services Supply of DYWIDAG Bar Tendons dia. 36mm, St 1080/1230; Supply of DYWIDAG couplings; Tensioning, injection with grease, detensioning of unbonded tendons.

**Landmark building is launched to new location with DYWIDAG bar tendons****Berlin, Germany: Relocation of the Emperor's Ballroom (Kaisersaal)**

After the Berlin wall came down, the former border strip between East and West Berlin was totally redeveloped. Key to the construction activities is the redesigned Potsdamer Platz, where the Sony administrative center were located together with other significant structures in the year 2000. This project incorporated the existing landmark segments (Kaisersaal, breakfast-room) of the Esplanade Grand Hotel, which was severely damaged during WW2. For this purpose the Emperor's Ballroom was moved 75 m.

In 1908 the world famous Berlin Esplanade was one of the most luxurious hotels of the imperial age. The bilevel Emperor's Ballroom featured in its top level the neobaroque "Red Salon" whose elaborate columns, mirrors and plaster decorations represent a precious treasure of the architecture of the period. A new street routing made the hotel an obstacle for the new development project. In order to save the ballroom, it had to be separated from the deteriorated Esplanade and relocated while keeping it intact.

In order to launch the structure to its new location, it was temporarily supported by a grid of three longitudinal and five transverse concrete beams. These beams were concentrically post-tensioned each with 12 Ø 36 mm DYWIDAG (1 -3/8") bar tendons. The beams extended outside the building with additional concrete segments for liftingpoints. The concrete segments were extended with DYWIDAG smooth bar tendons that coupled onto the internal THREADBAR[®] tendons. Since the liting needs were only temporary, the post-tensioning was unbonded. ALLSPANN Berlin supplied a total of 96 14.8 m long tendons with 72 1.2 m long extensions.

Hydraulic jacks raised the Emperor's Ballroom 2.5 m in order to install the air-film equipment beneath the support grid for the actual launching. This generated an air cushion on which the 1,300t landmark was moved to its new position. During the move, the building had to be rotated twice "in the air".

The Emperor's Ballroom was reopened in 1999 as the Sony-Center opened its doors.