DCP Bar Anchors secure stage foundations of the Teatro alla Scala

Renovation of the Teatro alla Scala, Milan, Italy

The Teatro alla Scala was founded,under the auspices of the Empress Maria Theresa of Austria, to replace the Royal Ducal Theatre, which was destroyed by fire on 26 February 1776. Until that time, the Royal Ducal had been the home of opera in Milan.

Designed by the great neoclassical architect Giuseppe Piermarini, La Scala opened only two years later on 3 August 1778 with Antonio Salieri's opera "L´Europe riconosciuta", to a libretto by Matia Verazi. The building is considered to be one of the most perfect theatres in the entire world.

However, 224 years later, the needs of the theater and the concerns about safety and working conditions as well as economic implications necessitated a major conservation effort. That project included not just the conservation of the monumental area but also a complete overhaul of the technical layout of the stage and service areas.

One important part of the renovation project was the deepening of the stage pit to -17.20m with an excavation of 18.6m in an area of 906m^2. For this purpose, DYWIT SPA supplied 60 uplift DCP Bar Anchors Ø36 mm St 835/1030 with a length of 21.20 m each, which were installed in the bottom slab to secure the foundations.DYWIT also provided technical assistance on the job site and the corresponding equipment.

All special foundation works were executed under difficult conditions owing to restricted access and limited working areas on different levels as well as the necessity of drilling through brick walls or rubble in upper levels. Limiting noise and vibrations to protect surrounding structures were as important as respecting the time schedule.

The DYWIT Services on the job site were started in July 03 and successfully concluded in October 03. The Teatro alla Scala was reopened on December 7th, 2004.

Reference Details:

Client Comune di Milano, Italy +++ **General Contractor** Consorzio Cooperative Costruzioni, Bologna, Italy +++ **Contractor** Cooperativa di Costruzioni,Modena,Italy;Cooperativa di Costruzioni Lavoranti Muratori, Milan, Italy; Cefla, Imola, Italy; C.E.I.F., Forlì, Italy +++ **Architect** Mario Botta,Lugano,Switzerland +++Consulting Engineers B.M.S. Progetti SRL, Milan, Italy +++ **Consulting Geotechnics** IG Ingegneria Geotecnica SRL, Milan, Italy +++ **Subcontractor Special Foundations** E.L.S.E. SPA, Milan, Italy

DSI Unit DYWIT SPA, Milan, Italy
DSI Services Supply of 60 DCP (Double Corrosion Protection) Bar Anchors Ø36mm St 835/1030, length 21.20m each; Rental of equipment; Technical assistance on the job site

for more information please call: + 49 89 - 30 90 50 - 200 or fax: + 49 89 - 30 90 50 - 252 or e-mail: info@dywidag-systems.com