

## PROJECT BRIEF

## Beijing Airport Boiler Room Column Upgrade with the TYFO® Fibrwrap® Composite System


 Beijing, China  
December 2005


With the second terminal at Beijing Capital Airport near completion, an upgrade of the boiler room was next on the list due to the additional heating demanded by the expansion. Upgrading the existing structure was a more cost-effective option, as compared to relocation, as there is ample land space in the vicinity for expansion. Also, with a well managed construction program deploying mostly non-intrusive retrofitting techniques, only minimal disruption will be experienced by the public as well as to the airport operations.

The columns for the boiler room vary from 3.5m to slightly over 10m in height for a triple volume ceiling where the boilers are located. It was acknowledged that the 10m floor-to-ceiling height coupled with hazardous welding works in a boiler environment would prove a major access and safety problem if the original proposal of hoisting and installing steel plates was adopted. TYFO® SEH51-A Composite System was thus readily accepted as a faster and safer retrofitting technique by all parties concerned. The original bulky scaffolding platform proposed was superseded by a simple wooden framework. Safety on site was therefore greatly enhanced as the risk of falling steel plates and potential explosion due to hot welding works was negated. More importantly, the boiler facilities continued to function normally, allowing the airport to operate without much compromise in its daily functions.

This project marked a milestone in the use of the TYFO® Saturator machine in China. It greatly reduced the time required to saturate the fiber as well as controlled the epoxy to fiber ratio, resulting in higher quality wraps produced.

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