



Case Study

ICL/DTS_BSF/STUDY/OLV/02/0422

Project
London 2012 Olympic Athletes' Village

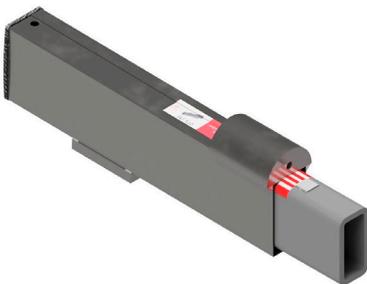
Architect
Various (12)

Engineer
AKT II

Main Contractor
Lendlease

Precaster
Trent Concrete / Techrete

Product(s) supplied
DTS 150 Mid Load Connectors



About Invisible Connections

We are the specialists in hidden structural connections for precast and in situ construction. We provide a range of 'unseen' telescopic connection systems for stairs, landings, beams and columns. We are also the manufacturers of FERBOX® bespoke reinforcement continuity strip.

All our products meet industry demands for improved safety, construction efficiency and cost competitiveness.

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Project description

The Athletes' Village for the London 2012 Olympic and Paralympic Games comprised a series of 8 and 9 storey accommodation blocks. Connecting these were a series of deck units, forming enclosed/glazed bridges. These deck units had to be installed after the blocks were constructed, and needed to allow maximum installation tolerance as well as the ability to allow expansion movement between the blocks.

Our role

We were called in by the precaster to produce an alternative to the specified support of large stainless steel angles (RSAs). The problems with RSAs were cost, practicality, appearance, and the need to work outside the building line. In addition, the connection needed to span a considerable distance between the bridge and structure, to accept a thick layer of vertical insulation. The alternative we proposed was a special version of the TSS stair landing connector, with a higher capacity (later to be branded as 'DTS').

Outcome

The specially adapted TSS telescopic connectors allowed precasting to continue offsite whilst the blocks were being constructed. Recesses left in the slab edges accepted the sliding connectors. The precast decks were offered up between the adjacent accommodation blocks and fitted perfectly every time.

The modified TSS connectors are now a standard part of the Invisible Connections range, and branded as 'DTS'.

DTS mid load connectors provide a versatile and structurally efficient connection for loads up to 150kN and have been used for miscellaneous applications such as supporting small beam to beam, or beam to column connections. Cord operation enables a blemish free surface.

Footnote

At the time of this project, Invisible Connections' products were supplied via J&P Building Systems Ltd. In 2014, Invisible Connections Ltd was formed to create specific focus on the telescopic connectors range.

Application

