



Case Study

Project
City College, Glasgow

Main Contractor
Sir Robert McAlpine

Precaster
Bison Manufacturing

Architect
Reiach & Hall

Engineer
Ove Arup (Scotland)

Product(s) supplied
RVK 101



About Invisible Connections

Invisible Connections is the registered trademark of SB Produksjon AS, Norwegian developer and manufacturer of the telescopic connectors range for nearly 30 years. In this time, hundreds of thousands of connectors have been used in construction projects around the world.

From a buildability perspective, our ETA approved products appeal typically to precast concrete manufacturers and in situ concrete frame contractors who appreciate the fuss free ease with which precast or in situ elements can be connected. Our products also provide design freedom for architects, who appreciate the aesthetic benefits of 'clean lines' wherever concrete elements are joined.

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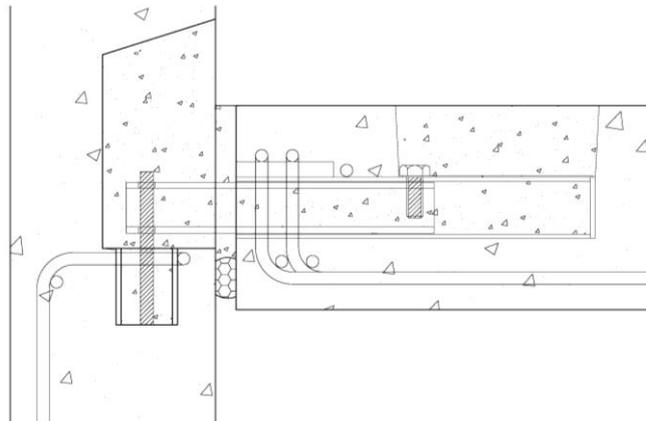


Project description

The City of Glasgow College project is on two principal campuses. The City Campus comprises a 7 storey block, an 11 storey spine tower, and a 4 storey wing. The frame is steelwork, carrying precast concrete floor slabs. Robustness anchorage is provided by a reinforced, in situ concrete topping.

Our role

RVK 101 telescopic connectors were specified to support the precast concrete stair landings on pockets in the in situ concrete stairwell walls. Design development created a need for some RVK connectors to also provide a horizontal structural connection between landings and walls (as well as normal structural shear), to give stability to the walls where service voids prevented tying via the in situ topping. Specially modified RVK 101 connectors were developed which, as well as supporting the stairs, also gave a 30kN axial capacity. This provided the necessary stability to the walls.



Typical section through landing to wall connection using modified RVK 101 telescopic connectors

Outcome

The anchorage provided by the modified RVK 101 connectors solved a major design problem with very little additional cost. Modified RVK 101 connectors have since been adopted by many precasters as a means of meeting robustness anchorage requirements on stairs.

Typical application image

