Case Study: Scottish Power HQ, Glasgow

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Kawneer designs a bespoke curtain wall for utility's new HQ

The 14-storey, 20,000m² new flagship headquarters for Scottish Power, Glasgow's largest single-occupier development for around 25 years, has made use of a bespoke Kawneer curtain wall system featuring a unique mullion design together with a project specific split transom arrangement to accommodate for the high levels of building movement.

Building: Scottish Power HQ Location: Glasgow Architect: Page Park Architects Main Contractor: Laing O'Rourke Installer: Charles Henshaw & Sons



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Kawneer powers up for Scottish Power

The Scottish Power building, on a formerly vacant site on the corner of St Vincent Street and India Street that was once the base of the old Strathclyde Regional Council, accommodates almost 1,900 staff and replaces its former HQ in the city's South Side and offices in Falkirk.

Other elements by Kawneer include AA®720 doors which were developed to meet the latest European requirements for thermal performance, and second-floor and sixth-floor internal rooflights.

The Kawneer elements on the £72 million building were installed between vertical concrete panels by approved Edinburgh-based façade specialists Charles Henshaw & Sons who worked closely with Page Park Architects to address the particular challenges of this project.

It had quickly become apparent that a standard SSG (Structurally Silicone Glazed) curtain wall system was not going to meet the exacting criteria. Considerable live load movement was inherent in the building design, and in some places concrete slabs would deflect by +/- 12mm which was too great a margin for standard SSG to accommodate.

Kawneer's technical team therefore devised the bespoke capped solution based on the manufacturer's AA®110 curtain wall with 65mm sightlines as opposed to the AA®100 system with 50mm sightlines.

A gap between the specially-designed transoms fully accommodates the +/- 12mm deflection characteristic of the concrete floor slabs. This expansion joint is used on every two floors, with a straightforward butt joint deployed on each intermediate floor. Additionally, a large 40mm glazing rebate in the mullions allows the glazing to rack in the frame, allowing for sideways movement. This tailored solution was fully performance tested at the VINCI technology centre to meet the CWCT (Centre for Window and Cladding Technology) standard for Systemised Building Envelopes Test Sequence B.

Colin Glover of Page Park Architects, who had not used Kawneer systems before, said the manufacturer was recommended by Henshaw and the Kawneer systems were used for the glazing and roof.

"Their part in the project is significant as the curtain wall makes up 50% of the facade," he said. "They were specified for their performance capabilities as it was the only system that could work with the deflection characteristics of the superstructure."

He added that the sustainability of the Kawneer system's aluminium composition had played an "important" part in its use.

Scottish Power, which owns the land, agreed a 25-year lease with Scots based developer Dawn Developments. Announcing the new headquarters in 2012, Ignacio Galan, chairman of Scottish Power and Iberdrola, who merged with the utility giant in 2007, said: "Our plans in the UK in the coming years require an office complex that is fit for purpose to deliver and manage these investments."

Please contact our Architectural Services Team if you have a project you would like to discuss: Tel: 01928 502604 / Email: kawneerAST@arconic.com

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