

Case Study: The Station, Manchester Airport

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Kawneer systems feature on Manchester Airport's landmark GTI building

Specialist contractor SIAC Façades, in partnership with Kawneer, completed a £7million contract to build the external envelope for Manchester Airport's ground transport interchange building, known as The Station.

Building: The Station

Location: Manchester Airport

Architect: Jefferson Sheard Architects

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Kawneer provides complex façade at airport

The fenestration package for The Station, Manchester Airport was valued at approximately £1.8 million and features Kawneer's PF structurally glazed curtain walling, 1202S structural silicone glazing, 1202 zone drained curtain walling and 500 Series windows.

It is a multi modal public transport interchange housing Manchester Airport's ground transportation services under one roof. These include buses, coaches, trains and taxis, as well as a future tram link. The building consists of a striking, triple height 'hub' building, which links to the existing railway station, and an associated six storey office block that achieved a BREEAM (Building Research Establishment Environmental Assessment Method) rating of 'excellent'. As part of the Airport's ground transport strategy, The Station has been developed to encourage maximum use of public transport for journeys to and from the airport. The concept design was completed by Nick Derbyshire Architects, with Aedas Architects designing the project up to Stage D, and overseeing both shell and core and fit out construction. Jefferson Sheard Architects, as part of Skanska UK, then took over and completed the shell and core detail design. Phil Pollington, project architect with Jefferson Sheard, describes the 'hub' building: "The 'hub' is a large, predominantly glazed structure that has been designed to be totally open. It is light, airy and palatial in scale. Internally, the steelwork is exposed, with lattice trusses supporting the Kawneer 1202S structural silicone glazing, which has been glazed with Pilkington arctic blue double glazed units."

The original fenestration requirement for the 'hub' had been for a frameless system. However, the Kawneer 1202S system was selected following a value engineering process carried out by SIAC, which demonstrated that the same visual effect externally could be more cost effectively obtained using structural silicone glazing. Phil Pollington comments, "I think we achieved a better aesthetic design as a result of the value engineering exercise. We were able to omit the additional steelwork required for the frameless system and put some new primary steel in where necessary to provide lateral support. These became feature trusses and enabled us to open up the space more, which was a design improvement."

Peter Cochlin, director of SIAC, describes the complexity of the 'hub' fenestration. "Because of the sheer size of the building and the client's desire to see more glass and less steel support, the Kawneer 1202S system was required to span some fairly large, unsupported heights. As a result, the mullions within the hub building are heavily reinforced, which was particularly challenging from a design and installation point of view. To ensure that they would withstand the load on them while spanning such unsupported heights, we incorporated Kawneer's reinforcing sleeve profile, inside which we inserted continuous steel plate. The weight of the mullions was considerable and needed careful handling during manufacture and installation."

The six storey office building provides a bus/coach concourse at ground floor level and five floors of offices featuring projecting 'oriel' curtain wall bay windows fitted with Kawneer's PF structurally glazed curtain walling. The building also features Kawneer's 500 Series windows, which are large – up to five metres in length – and fully integrated with Spanwall cladding. Kawneer's 1202 zone drained curtain walling was used as strip windows into copper look-a-like Spanwall cladding, which overlads the service cores of the office building. The Spanwall cladding to the office building has a dramatic blue duotone paint finish and the Kawneer systems, which are fitted with Pilkington high performance Suncool double-glazing, a metallic silver paint finish.

All of the Kawneer products used on The Station building were subject to rigorous project-specific laboratory testing that was carried out on a test rig at Taywood Research Centre. The developer for The Station was Manchester Airport Developments Ltd, part of the Manchester Airport Group.

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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