

Case Study: Marine Operations Centre, Aberdeen

043/May14



Kawneer curtain walling chosen for a project in a very exposed harbour location

Curtain walling solutions from Kawneer feature extensively on the Marine Operations Centre on the North Pier at the Port of Aberdeen.

Building: Marine Operations Centre
Location: Aberdeen
Architect: SMC Parr Architects
Main Contractor: Sir Robert McAlpine
Installer: Charles Henshaw & Sons

WWW.KAWNEER.CO.UK

 **KAWNEER**
AN ARCONIC COMPANY

Kawneer completes complex coastal cladding project

The Marine Operations Centre project, on Scotland's windswept North Sea coast, would test any façade system. Situated just two metres from the edge of the Aberdeen harbour wall, the building has to withstand high winds, cold winter temperatures and a wet, salt-laden climate. And if that were not enough, the façade is a complex, faceted outward-sloping design.

The designers of this landmark building are the Dundee office of SMC Parr Architects who opted for a striking modern take on the traditional Scottish lighthouse. The external envelope is partly white reconstituted stone but the greater part – and the most exposed part – is a bespoke glazed curtain wall manufactured by Kawneer and installed by Edinburgh specialist and Kawneer-approved installer Charles Henshaw. The building, which replaces the port's old Navigation Control Centre, houses the latest marine traffic management equipment as well as a state-of-the-art ship's bridge training simulator.

Project director Derek Reid said: "We recommended the early involvement of the cladding contractor and it was Henshaw that brought Kawneer into the equation. We had come up with a bold concept and it was essential to progress the detailed design with input from all parties – the installer and the supplier as well as Sir Robert McAlpine, the main contractor."

This teamwork, with Kawneer's special projects team supplying design drawings and fabrication of the curtain wall, resulted in a glazing solution that would accommodate the architect's challenging specification and deliver the 270° visibility demanded by the client, Aberdeen Harbour Board. The complex shape, and the fact that the wind-swept building would be subject to higher-than-average building movements, meant the curtain walling had to be flexible in more ways than one. Not only did it need to accommodate the curvature of the façade, it had to be capable of flexing with the rest of the structure. The solution was Kawneer's AA®110 curtain wall system – a system that had never been used in the UK before.

"We had to use AA®110 because we needed the extra space in the glazing rebate to accommodate movement," said Henshaw's managing director Tom Lamb. Kawneer's AA®110 system is similar to the company's more familiar AA®100 range except it has deeper glazing rebates. The AA®100 features 50mm wide transoms and mullions whereas the AA®110 sections are 65mm deep. Although the AA®100 gives slender sight-lines, the AA®110 is inherently more flexible.

"In developing the design with Kawneer's special projects team, it was clear that the particularly demanding movement tolerances on this project would be better accommodated by the AA®110 system," said Mr Lamb.

Some modular glazing systems have a built-in flexibility that will accommodate large building movements, but on this project, only a bespoke 'stick' system could deliver the complex geometry of the façade. "Every mullion and every transom is different on this façade – and as you can imagine, setting-out was very complex," Mr Lamb added.

The early involvement of Henshaw and Kawneer in the development of this design was essential to the ultimate success of the project, said architect Derek Reid. Despite the complexity of the design, Henshaw completed the curtain wall installation in just 12 weeks – in the depths of winter, at that.

The Marine Operations Centre is both an iconic structure for Aberdeen and a functional solution to the harbour's practical requirements. And although complex and challenging, the design has won the building a Civic Trust Award and the admiration of the architectural community.

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

Kawneer UK Limited, Astmoor Road, Astmoor Industrial Estate, Runcorn, Cheshire WA7 1QQ
Tel: + 44 (0)1928 502500 Fax: + 44 (0)1928 502501

WWW.KAWNEER.CO.UK

