

# Case study



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For immediate release

## Schöck meets curved balcony challenge in Docklands

When the Royal Victoria Dock finally closed to commercial shipping during the 1980s, it resulted in widespread dereliction and unemployment in that part of East London. At the time it would have been totally inconceivable that just over a generation later, the Royal Victoria would witness such remarkable and vibrant change. The latest landmark and part of the £1.2 billion transformation masterplan, is Gateway Tower (previously Pump Tower), just a few hundred yards west of the ExCeL Exhibition Centre. With its striking series of curved forms, it is an intriguing example of modern urban design. The 73 metre high, 24-storey mixed-use scheme provides 161 spaciouly designed apartments and penthouses, with office and retail space at ground level sitting over an underground car park. Each apartment features a terrace, a winter garden style 'sun lounge', or a balcony. The design specifications on the project were demanding and the avoidance of thermal bridging at any of the critical connectivity points was naturally a key consideration. To counter any such problems, the widely used Schöck Isokorb structural thermal break element for concrete-to-concrete applications was incorporated – but there was an installation challenge or two.

### Curved façade meant a tight radius

The first being that there was a tight radius in which to position the thermal breaks, due to the unusual curved styling on the façade. To resolve the issue, the Schöck Isokorbs were supplied with alternating depths of rebar and 35 mm and 50 mm concrete cover to the tension bars. This allowed the rebar in the Isokorb to sit underneath the internal slab reinforcement and not clash with the bars from the Isokorbs on either side of each unit. In addition, Schöck also had to create a bespoke unit for one of the balcony types, where a beam was

introduced to the balcony by the Structural Engineer, to reduce the deflection of the slab. The thermal break had to both connect the beam back to the slab, which required a bespoke unit in itself and also connect the beam at an angle to the insulation line.

### **Totally verifiable performance**

The product type used at Gateway Tower is for concrete-to-concrete, but the comprehensive Isokorb range from Schöck also offers solutions for concrete-to-steel situations, a modular product for steel-to-steel applications – and even a maintenance free alternative to wrapped parapets. When any Isokorb product type is incorporated into residential buildings, the required fRsi value – the temperature factor used to indicate condensation risk that must be equal to or greater than 0.75 – is always comfortably met. The range also complies with the Government Standard Assessment Procedure, SAP 2012, concerning CO2 emissions from buildings and respectively heat losses through non-repeating thermal bridges. Products meet full compliance with the relevant UK building regulations, have NHBC approval and offer LABC Registration. There is also the security of independent BBA Certification.

- Ends -

### **Project Information:**

Main Contractor: C J O'Shea Group Ltd  
Architect: BUJ Architects  
Client: City & Docklands Property Group

**Contact Schöck on 01865 290 890; or visit the website at [www.schoeck.co.uk](http://www.schoeck.co.uk) for a free copy of the Schöck Thermal Bridging Guide; the Schöck Specifiers Guide and to view the full range of downloadable software.**

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**Notes to the editor**

**A leading European supplier**

Schöck has grown to become Europe's leading supplier of innovative structural load bearing insulation products. The main product is the Schöck Isokorb – a thermal break for various types of cantilever constructions in new buildings and for renovation. Its headquarters are at Baden-Baden in southern Germany and there are subsidiary companies in Great Britain, France, Austria, Switzerland, Italy the Netherlands, Belgium, Poland, Hungary, Russia, Japan, Canada and the USA. Sales teams and partners operate in many other European countries and also Australia and South Korea. Schöck is committed to providing the highest level of technical back up and comprehensive customer service to the construction industry.

## Images and Captions

**[Gateway Tower 1.jpg]**



*A striking series of curved forms. Schöck Ltd, royalty free.*

**[Gateway Tower 2.jpg]**



*Gateway Tower, Royal Victoria. Schöck Ltd, royalty free.*

[Installation Isokorb.jpg]



*The Schöck Isokorbs were supplied with alternating depths of rebar. Schöck Ltd, royalty free.*

[Tower under construction.jpg]



*Work in progress 2017. Schöck Ltd, royalty free.*