Scunthorpe Sports Academy

The future of sporting design. Scunthorpe Sports Academy is a UK first: large scale geodesic domes have never been constructed in the UK before.

Main Contractor
Bowmer & Kirkland

Structural Engineer
Buro Happold

Architect
S&P Architects

Location
Scunthorpe, Lincolnshire

The Brief
To improve local sporting facilities and set a new standard for building developments in the region.

The Results
A groundbreaking development that not only serves the local community but has been recognised for its architectural and structural prowess.

About The Client
Scunthorpe Sports Academy, or ‘The Pods’ as it was nicknamed, was a replacement fixture for a number of facilities in the North Lincolnshire area. It was put forward as a project to not only reenergise the sports and leisure industry but to improve future building standards and investment in the local area.

The Brief
The iconic development of aesthetically outstanding geodesic structures consisted of five intersecting domes. The Scunthorpe Sports Academy represented a £26 million investment by North Lincolnshire Council to create a ground breaking sports education facility. This structural solution has been successfully executed on the continent, but this design was a first for the UK to be constructed on such a large and complex scale - classically incorporating geodesic geometry - a series of polygonal or triangular shapes to achieve a curved surface similar to a leather football.
Key Challenges

The greatest challenge was connecting the numerous interfaces between the geometry of the roof to the steelwork nodes and the cassette panels. To overcome this challenge, a decision was reached to model the roof earlier in the process enabling the team to understand and get to grips with the geometry from an early stage.

Although none of the domes are true circles, the diameters extend from 20 metres up to nearly 50 metres, with the largest covering an area close to 2,000 square metres. Each of the five domes are constructed from mainly glulam timber elements, with large steel sections forming flat arches where adjoining spaces meet. B&K structures utilised propping towers to provide temporary support during the complex build process.

The Solution

Structural steelwork was vital to the design to support the extended soffits over the larger spaces that offer room for the academy’s many amenities, including a competition size swimming pool. The geodesic domes were designed with bespoke steel nodes to create the junctions between the individual glulam members.

Quotes & Awards

The Project Architect for S & P, Ron Wallwork, commented: "Considering this is a pioneering project where the main components had to satisfy a very demanding brief, it has gone very smoothly, with B&K Structures being able to comfortably develop and deliver the final structures."

The Scunthorpe Sports Academy project has won a Green Apple Award for Sustainability, a Public Realm Award and Best Community Project in the LABC Building Excellence Awards. The design was also the winning entry in a RIBA organised design contest.

Contact us

T 01773 853 400
I www.bkstructures.co.uk
E sales@bkstructures.co.uk