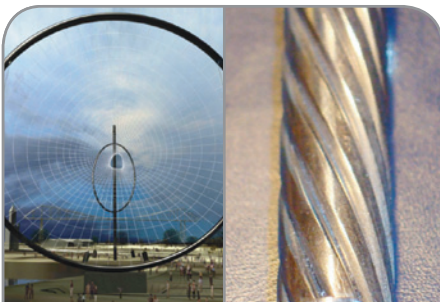




Cable Net

Temenos Art Work, Middlesbrough

Client
English Partnerships
Architect
Anish Kapoor
Principal Contractor
Balfour Beatty
Structural Engineer
Arup
Contract Duration
6 months
Works Completed
September 2009



The Tees Valley Regeneration body wanted a landmark artwork to aid the regeneration of Middlehaven in Middlesbrough. World class artist Anish Kapoor won the commission and has produced Temenos - a 106m long by 40m high cable net – that resembles a trawler net in the sky.

The net comprises 64no 10mm and 16mm diameter Dyform stainless steel spiral strands which are stretched between two huge steel rings and pulled into shape by 49no 10mm diameter cable hoops. The rings are held in place against the tension in the net by 32mm diameter Dyform stainless steel spiral strand back-stays. At one end the symmetry is deliberately disrupted by an elliptical ring which is canted over by about 10o and twisted in plan too. This elliptical ring is held in the air by cables coming from the top of a 45m high mast which, in turn, is back-stayed by eight 32mm diameter cables. The largest ring weighs 55t and is 32m in diameter.

Freyssinet's package involves the supply and erection of the cable net and back-stays. With the rings lying flat on the ground beneath their final positions, the cable net will be loosely woven at ground level. This is to maximise safety by avoiding working at height whenever possible. The circular ring will then be craned into position and temporarily propped. Then the mast and elliptical ring will be raised and, with it, the cable net will be stretched out between the rings. At this point the final cable connections will be made and the net checked for alignment and appearance before the elliptical ring is jacked into its final position near to the top of the mast.

Anish Kapoor is a Turner prize winning artist of international standing. His other works include the bean-shaped "Cloud Gate" in Chicago, the 9/11 memorial at New York's Ground Zero and "Marsyas" in London's Tate Modern, a tensioned fabric sculpture similar in shape to Temenos.

The name "Temenos" comes from Greek meaning land cut off and assigned as a sanctuary or holy area. The stainless steel cables of the structure reflect the heritage of Middlesbrough and the Tees Valley.

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