

Roof structure for a Bullring in Pontevedra

The roof structure of the bullring in Pontevedra is conceived as a shell in form of a semi-spheroidal segment 69.0m in diameter with a ring-shaped central opening 25.0m in span.

This structure is composed of an inner compression steel ring with a trapezoidal cross section, an outer concrete tension ring that also acts as a counterweight to wind suction by a system of meridian and parallel beams made up of 0.24m hot-rolled profiles with a 1/296 slenderness ratio and diagonal bars that guarantee shell behavior.

The cladding material consists of a textile membrane divided into 25 sectors which are connected to the upper and lower rings via strands and supported on tubular profiles placed on the parallel beams.

The final process of construction involved the following steps: firstly, the central ring was lifted and set on provisional towers. Secondly, the outer concrete ring was cast and the system of parallel, meridian and diagonal beams set up. Finally, the textile membrane was placed.



Spain / 1996
Project data

Structural type:
Single-layer steel roof with
membrane cladding

Location:
Pontevedra. The Province of Galicia

Opening date:
July 1996

Proprietor:
Plaza y Toros

Contractor:
Victoriano del Río Fameca

Scope of Works:
Construction Project