

# ROMA – OLYMPIC STADIUM

## DESCRIPTION

The tension structured system used for the roofing of the Olympic Stadium in Rome is formed by a system of 88 flat tension structures with supporting/stabilizing cables and vertical hangers, arranged radially with a maximum distance of 12 metres. The external cables are anchored by adjustable devices, that correspond to the nodes of a ring-shaped reticular spatial structure; inside they are connected to a tensioned inside ring.

Depending on the state of stress and deformation, the flat tension structures have been sized differently and joined in two groups. The arrangement of a secondary support of the roof covering is joined to the radial arrangement of the flat tension structures. The beams are made of a reticular frame and are suspended at the level of the stabilizing cables and secured by a simple support. The roof covering, supported and connected to the extrados of the parallel tubular secondary beams, is formed by a glass fibre membrane, coated with con P.T.F.E.

**Service provided:** Structural Design

**Client:** CONI - Roma

**Year:** 1990

**Roof Surface:** 50.000 m<sup>2</sup>

**Number of seats:** 85.000

**Amount of works:** € 80.000.000,00

