

BOLOGNA – EXHIBITION HALL 20

DESCRIPTION

Pavilion P20 has 2 exhibition floors with 24x24m inferior mesh and 64m span of beams in the roofing. The reinforced beams are arranged transversally to the longitudinal axis and are on the top of the column-towers at a height of 21.45 metres. They are formed by box shaped beams, that form the upper current, obtained by coupling (according to the weak axis of the section) HEAA 900 profiles of Fe 510 C steel (S355 according to EC3) and reinforced, in the vertical floor, with 6 galvanized spiral cables of 42 mm in diameter of high resistant steel ($f_u > 1600$ MPa). The spacing uprights are made with HEAA 280 profiles of Fe 510 C steel, placed in the flat beam in a V configuration.

The beams placed in this manner have 65 metre spacing between the supports and a centre height, as the spacing between the axis of the upper and lower current, equal to about 10% of the span. The distance between the uprights is 24 metres.

The spatial conduct of the reinforced beam is reached by coupling the two flat beams at a relative distance of 8 metres, by an out of plane connection, created in correspondence of the upper current and the V shaped uprights.

Service provided: Structural Design

Client: Bologna Fair

Year: 1995

Surface: 33.000 m²

Amount of works: € 28.405.129

