

## Arch Bridge over the River Júcar

The Bridge over the River Júcar comprises a double arch with an intermediate composite deck which is highly skewed. The arches above the deck are made of steel maintaining a constant area, despite their variable widths at different points: each arch is narrower but deeper at the abutments and wider but shallower at the crown; this is so done in order to increase lateral stability against buckling. The span of the arch at the intersection with the deck is 87.00m.

As the bridge foundations are supported on piles, the arch is completed with a triangular steel cell which contributes to compensating the horizontal component of the arch reaction.

Once the concrete infrastructure was built, the steel deck was placed and the arch above it, afterwards the hangers were installed and stressed and finally, the concrete of the deck was cast.



### Spain /1998 Project data

Structural type:  
Double arch and intermediate composite deck 103.80m in span  
Location:  
New northern access to Alzira,  
The Province of Valencia  
Opening date:  
December 1998  
Proprietor:  
Generalitat Valenciana  
(Local Government of Valencia)  
Construction:  
UTE Sarrion, Ploder and  
Schwart Hautmont  
Scope of Works:  
Construction Project