

Pordenone

Location:	Pordenone, Italy, crossing of Meduna river
Client:	City Pordenone
Team/architect:	In collaboration with Bolina, Costructura and H&A
Year:	2020
Engineering services:	Competition (bridge concept)
Bridge use:	Road bridge
Bridge type:	Tied steel arch on three spans
Technical data:	Spans 87.5, 175, and 87.5 m
Construction cost:	Approx. EUR 22M

Project Description

The project for an iconic bridge at the entrance to the city of Pordenone combines the architectural beauty of the arch form with the technical efficiency of the materials, resulting in a cost-optimized structure that won third place in the competition with the highest technical rating.

A single steel box girder is carrying a two-lane carriageway and a combined pedestrian-bicycle way in each direction. The elegance of the slender arch, supporting the 175 m main span tying steel deck, has a varying cross box section optimized for the lateral buckling. The two 87.5 m side symmetric spans are partially supported by a tie connected to the arch contributing to balancing the weight of the central span. With this solution, only two piers are required in the river bed, solving the hydraulic criticality of the area, maximizing the water flow capacity. The proposed bridge construction launching technique from one side minimizes the environmental impact and the required site works space.

