

maeg

- BRIDGES AND VIADUCTS

Trestle bridges

Specialist in the **design**, **manufacturing** and **installation** of steel structures

About Maeg

Maeg is an international player in the construction sector. With more than 40 years of experience, Maeg's expertise can adapt to each project characteristics to devise tailor-made and innovative engineering solutions, concretely transforming design into substance.



ISO 9001:2015



ISO 1090-1/2



ISO 3834



EURO SOA



RFI - SQ008 TMF-001



AFER



RVS-15.05.11



Guayllabamba Bridge, Quito - Ecuador

List of projects

Trestle Bridges

- Rio Meggiana Bridge, Piedimulera - Italy
- Guayllabamba Bridge, Quito - Ecuador
- Silogno Bridge, Baceno - Italy
- Science Bridge, Rome - Italy

- 07-08 | 09-10
- 11-12 | 13-14
- 15-16 | 17-18
- 19-20 | 21-22

RIO MEGGIANA BRIDGE

Location

Piedimulera, Italy

Client

Province of Verbano Cussio Ossola

Contractor

COGEIS S.p.A.

Scope of work

Design, fabrication and installation of steel structures

Period of execution

2019

Weight

360 tons

Length

135 meters

As part of the Provincial Road 66 in “Val d’Ossola”, the bridge over the Meggiana valley was built to by-pass a dangerous hairpin bend of the only road that reaches the Italian side of Monte Rosa.

The structure, built 80 meters above the valley, is made of Corten steel and includes welded joints between the main beams and bolted joints in the internal bracing. In the launching operations for both sides, some supports were installed and kept in place during the subsequent operations by means of DYWIDAG bars, hooked to the abutment. Subsequently, the macro elements were installed as a cantilever, until they were closed by the final element.





GUAYLLABAMBA BRIDGE

Location	Quito, Ecuador
Client	Panavial SA
Contractor	Herdoiza Crespo Construcciones SA (HCC)
Scope of work	Design, fabrication and installation of steel structures
Period of execution	2013-2014
Weight	1.240 tons
Length	150 meters

The Guayllabamba Bridge is located on the new highway connecting the capital, Quito, with the new airport allowing the transition of more than 15.000 vehicles per day, boosting local economies and tourism.

This trestle-type bridge has a total length of 150 meters with a central span, between the supports, measuring 105 meters. One of the two final spans is curved and consists of two independent carriageways with a width of 12 meters each, reaching a total steel weight of 1.240 tons. The assembly phase took place in an arduous territory, which forced to operate with a minimum manoeuvre space creating accessibility problems to the construction site. Consequently, a mixed assembly methodology has been chosen to expedite the execution: firstly, the supports or "legs" have been installed and kept in balance by using a temporary-cable system, secondly the straight portion of

the deck has been launched from the top and finally the last spans have been installed by using crawler cranes.





SILOGNO BRIDGE

Location

Baceno, Italy

Client

Anas S.p.A.

Contractor

Grandi Opere Italiane Srl

Scope of work

Design, fabrication and installation of steel structures

Period of execution

2011

Weight

800 tons

Length

90 meters (23+40+23)

The Silogno Bridge is a trestle bridge part of the alternative route to the State Road n° 659, aimed to eliminate a particularly dangerous point over the river Devero, at a height of 46 meters.

The trestle typology has two oblique "legs", 16 meters long, supporting a 90 meters long deck having a radius of curvature equal to 150 meters. The deck is composed of three spans of 23, 40 and 23 meters made of four main beams made of welded metal sheets with plate girders. The bridge has a slope of 9 percent and a weight of about 800 tons. The material used is Corten steel, which has the peculiarity of forming a superficial patina that makes it able to protect itself from corrosion.





SCIENCE BRIDGE

Location

Rome, Italy

Client

Municipality of Rome

Contractor

ATI Maeg Costruzioni S.p.A. - Acqua e Verde Nord srl

Scope of work

Design, fabrication and installation of steel structures

Period of execution

2010-2011

Weight

700 tons

Length

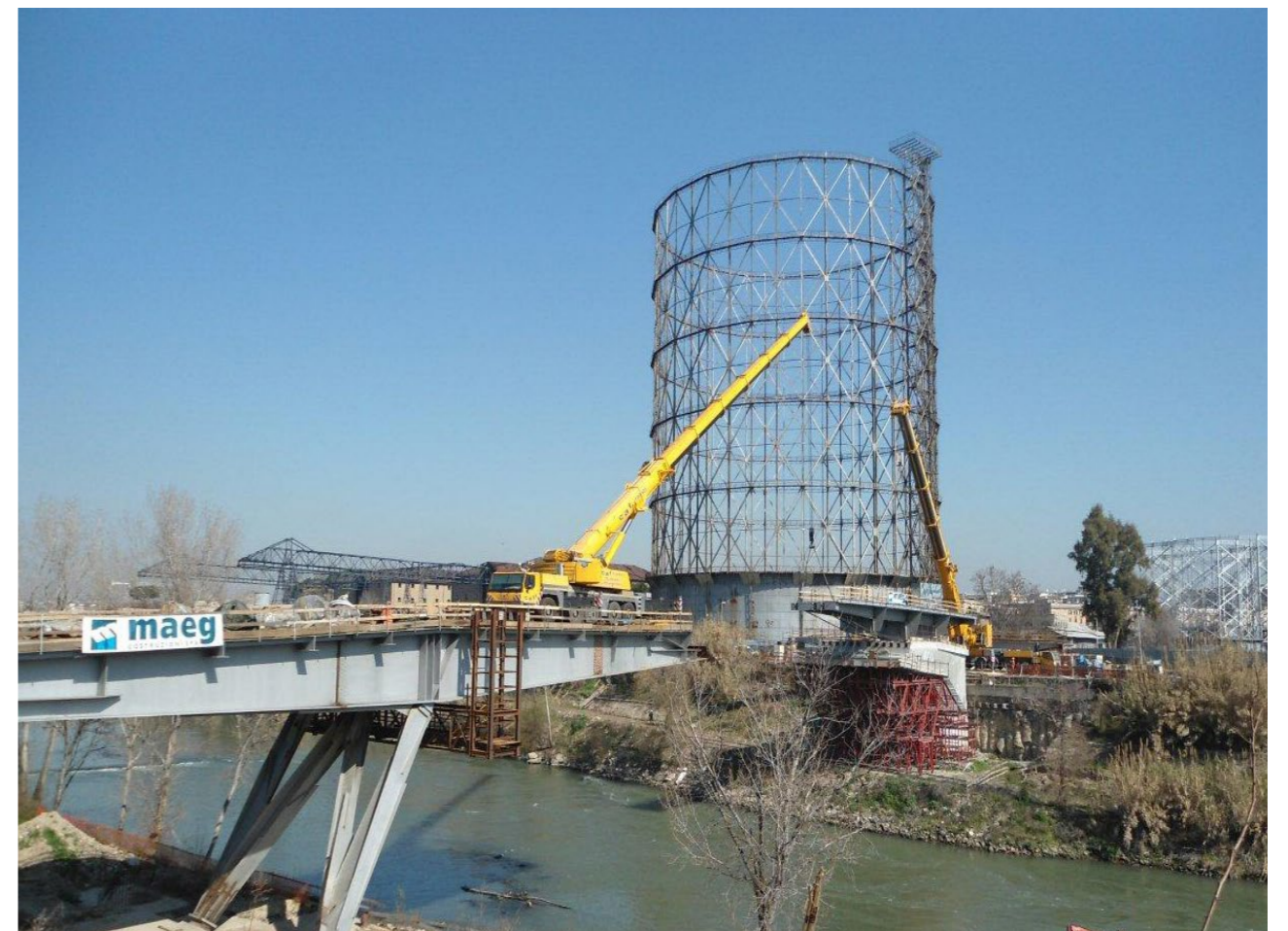
142 meters

Infrastructure for pedestrian and cycle circulation, the Science Bridge was born as a link between two post-industrial areas of the city of Rome, connecting the Ostiense area with the surrounding districts, offering a meeting point for collective activities and installations. The bridge was dedicated to Rita Levi Montalcini, Nobel Prize for medicine.

The Science Bridge has an overall length of 142 meters and it is made of two "legs", placed at 100 meters from one another on the shores with asymmetrical cantilever of 30 and 15 meters, reducing the distance between the shores to 36 meters. The erection methodology has been conceived to avoid any interaction with the below river during installation: the two supporting legs have been cantilevered and

temporarily supported with cables, while the deck has been firstly preassembled on the ground and then slid in position by means of a launching girder. The central span includes

the presence of steel cables connected to the supporting legs, transferring the loads and reducing the risk of bending. The deck has a constant width of 10.2 meters.





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