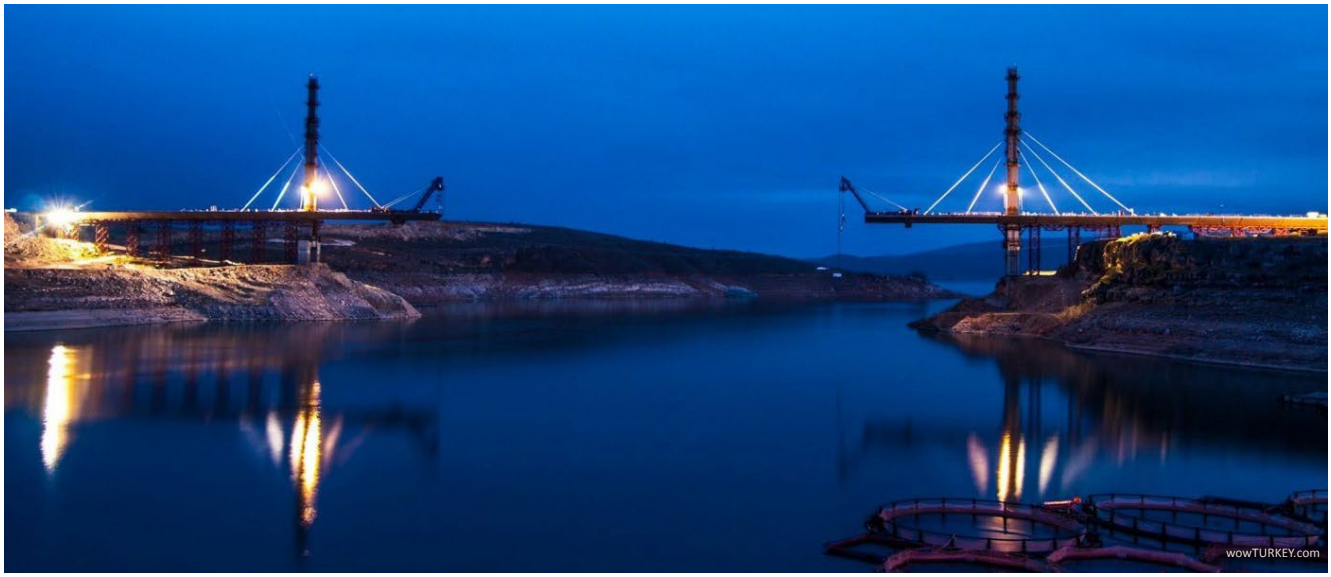
Agin Bridge (Turkey)



Project description

The new Agin Bridge in eastern Turkey is a cable-stayed bridge with steel box deck and steel pylons. It is located on the Agin Provincial Road, linking the cities of Elazig and Malatya across the Keban Baraji Reservoir.

The bridge has a main span of 280 m and back spans of 120 m each, and thus an overall length of 520 m. The two steel pylons reach 55 m above deck level. The main deck is composed of an orthotropic steel box section with a width of 13 m.

Due to the seismicity of the location, the bridge had to be designed to withstand strong earthquakes.

mageba scope

The bridge's seismic design called for the use of curved surface friction pendulum bearing type. These are based on the working principle of a pendulum, giving to the supported structure (e. g. a bridge deck) an oscillation period that decouples it from seismic ground accelerations while also dissipating energy and granting re-centering. The isolators supplied for this bridge accommodate horizontal movements of +/- 200 mm and a period of oscillation of about 2.5 seconds.

mageba further supplied 2 units of modular expansion joints of type LR5-A80 with max. total movement of 400 mm, 1 unit per side, 13 m each, for a total of 26 m.

Highlights & facts

mageba products:

Type:	RESTON®PENDULUM MONO PM25.0
	TENSA®MODULAR expanison joints type LR5
Installation:	2014

Structure:

City:	Elazig
Country:	Turkey
Completed:	2015
Type:	Cable stayed bridge
Length:	520 m (main span 280 m)
Owner:	Ministry of Transport, Marine and Communications, General Directorate of Highways and Motorways of Turkish Republic
Contractor:	Mega Yapi
Engineer:	WIECON CO. LTD.

The bridge is located in eastern Turkey, linking the cities of Elazig and Apapgir across a reservoir

A curved surface slider during assembly showing its upper stainless steel concave sliding surface

Finalised installation of the TENSA®MODULAR expansion joints

mageba Switzerland www.mageba.ch

mageba sa - Solistrasse 68 - 8180 Bülach - Switzerland - T +41 44 872 40 50 - info@mageba.ch