

4th Nanjing Yangtze Bridge (China)



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Project description

The Fourth Nanjing Yangtze Bridge crosses the Yangtze River near the city of Nanjing in eastern China. The Yangtze is crossed by a number of major suspension bridges near Nanjing, where it has a great width despite being over 300 km from the coast. Having previously supplied modular expansion joints for the Second Nanjing Bridge in 2000 (20-gap joints), and the Third Nanjing Bridge in 2005 (13-gap joints), mageba, and the TENSA®MODULAR joint in particular, already had a strong record of proven performance in the region.

The main structure is a three-span continuous suspension bridge with a main span of 1,418 m.

mageba scope

To facilitate the enormous longitudinal deck movements of 1,920 mm at both ends of the cable supported structure, mageba supplied four TENSA®MODULAR expansion joints of type LR19 (each with 19 individual gaps between surface beams). The joints were all treated with ROBO®GRIP anti-skid surfacing.

Each joint has a length of 16 m, and two joints placed end to end span the movement gap at each end of the structure, one for each carriageway.

The joints were manufactured in mageba's Shanghai factory, just 250 km from the bridge.

In addition, four sets of RESTON®SA hydraulic dampers were also installed, which are used in general to dissipate large amounts of energies that may arise from sudden dynamic loading, such as earthquakes or heavy road vehicles.

Highlights & Facts

mageba Products:

Type:	TENSA®MODULAR expansion joints of type LR19
	RESTON®SA hydraulic dampers
Installation:	2012

Structure:

City:	Nanjing
Country:	China
Completed:	2012
Type:	Suspension bridge
Length:	5,437 m
Height:	229 m
Contractor:	China Communications Construction Company, Second Harbor Engineering Co., Ltd

The bridge crosses the Yangtze River near the city of Nanjing in eastern China



Transport of TENSA®MODULAR expansion joints (13-gap) for the Third Nanjing Bridge in 2005



TENSA®MODULAR expansion joints (20-gap) as installed on the Second Nanjing Bridge in 2000

