

Taizhou Bridge (China)



Project description

The Taizhou Yangtze River Bridge links the cities of Taizhou, Zhenjiang, and Changzhou across Asia's longest river. At the point where the bridge is located, the river has a width of approximately 2.1 km.

In order to minimize impacts on river flow and navigation, a three-pylon (two main span) suspension bridge with spans of 390 m, 1,080 m, 1,080 m and 390 m was proposed.

The ambitious construction project represented the first attempt to create a long-span multi-tower suspension bridge, and the bridge won the 2013 Institution of Structural Engineers Supreme Award for structural engineering.

mageba scope

mageba supplied TENSA®MODULAR expansion joints for each end, each with 18 individual gaps and facilitating movements of up to 1,440 mm.

A ROBO®CONTROL permanent "Advanced" SHM system was also supplied and installed, to measure deck movements at the expansion joints.

Measurements to date enabled it to be concluded that the movements and rotations of the extraordinary bridge's deck are as expected, and that the exceptional expansion joints continue to perform very well.

A new feature, currently being developed, will also support remote expansion joint inspections.

Highlights & facts

mageba Products:

Type: TENSA®MODULAR expansion joints (LR18), ROBO®CONTROL monitoring system

Installation: 2012

Structure:

City: Taizhou

Country: China

Completed: 2012

Type: Suspension (3-tower)

Length: 2,940 m

Owner: Jiangsu Taizhou Bridge co., Ltd

Contractor: CCCC SECOND HARBOUR ENGINEERING COMPANY LTD., CCCC Second Highway Engineering Co., Ltd, China Zhongtie Major Bridge Engineering Group Co., LTD

The Taizhou Yangtze River Bridge is located in eastern China



An 18-gap TENSA®MODULAR expansion joint, allowing 1,440 mm of movement, as installed



Installation of the bridge's ROBO®CONTROL monitoring system beneath an expansion joint

