

United Nations Circle Flyover (Kuwait)



Project description

This 15-span curved highway viaduct on Kuwait City's Fourth Ring Road was built in the 1980s, with a length of 800 m.

The continuous prestressed in situ concrete deck is a 5-cell hollow box construction, with a depth of 2.75 m and width of 15 m. The piers are made of reinforced concrete.

Among other requirements, the structure was designed to withstand seismic forces.

Renovation works carried out in 2015 include the replacement of the viaduct's modular expansion joints, which had suffered serious damage due to their rigid, inflexible design.

mageba scope

It was decided to replace the existing rigid modular expansion joints with mageba TENSA®MODULAR expansion joints, which have an elastic control system and can thus accommodate movements in all directions and rotations about all axes.

The joints are of types LR10 and LR11, with 10 and 11 gaps respectively, each allowing longitudinal deck movements of 800 mm or more.

As well as accommodating unexpected movements and thus avoiding the resulting damaging constraint forces, the elastic design of the TENSA®MODULAR joint minimises fatigue loading and further enhancing long-term durability.

Highlights & facts

mageba products:

Type:	TENSA®MODULAR expansion joints of types LR10 and LR11
Features:	Design according to AASHTO specifications
Installation:	2015

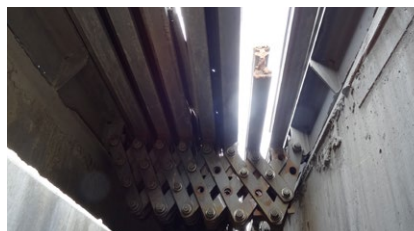
Structure:

City:	Kuwait City
Country:	Kuwait
Type:	Highway viaduct
Length:	800 m
Completed:	1984
Renovated:	2015

The viaduct is located in the outskirts of Kuwait City



The existing rigid expansion joints lacked the flexibility of mageba joints, resulting in damage



The elastic control system of TENSA®MODULAR joints allows great flexibility, preventing damage

