

Danube Bridge on the D4 motorway (SK)



Project information

The Danube Bridge is the main structure on the new Bratislava Bypass section of the country's D4 motorway, which forms part of the Trans-European Transport Network and is therefore of international importance.

It is situated just outside the Slovak capital, Bratislava, and it is the country's longest bridge.

The structure is a concrete box girder bridge with a total length, including approaches, of 3,000 m – mostly with spans of about 67.5 m but with six longer spans of between 130 m and 210 m.

The bridge is located near the Slovakian capital of Bratislava



mageba scope

Large expansion joints were required at five locations along the bridge, each over 30 m long.

The required longitudinal movement range was between 500 mm and 1,400 mm for each joint, and it was also specified – in keeping with the bridge's location in a sensitive, ecologically protected area – that the noise emitted by traffic passing over the joints should be very low.

Considering all specifications and requirements, mageba proposed the optimal solution: TENSA®MODULAR (type LR-LS) expansion joints with noise-reducing surfacing. As well as greatly reducing the noise of traffic passing over a modular joint, the noise-reducing ("sinus plate") surfacing enables the largest movement requirement of 1,400 mm to be met by a 14-gap joint (at 100 mm per gap).

The supplied joints are the largest-movement expansion joint on the Slovakian road network.

The supplied TENSA®MODULAR joints were manufactured in the Slovakian factory



Highlights & facts

mageba products:

Type:	TENSA®MODULAR LR-LS expansion joints
Feature:	Noise reducing "sinus plates"
Installation:	2020–2021

Structure:

Country:	Slovakia
City:	Bratislava
Type:	Concrete box girder bridge
Length:	3,000 m
Owner:	Zero Bypass Ltd. (Cintra, Macquarie Capital, PORR AG and Aberdeen Standard Investments)
Contractor:	The consortium D4R7 Construction s.r.o. between Ferrovial Construction and PORR
Engineer:	Dopravoprojekt, a.s. TORROJA ENGINIERIA, S.L.P.

One of the modular joints installed with "sinus plate" surfacing

