

D1 – Hričovské Podhradie – Lietavská Lúčka (SK)



Project description

The D1 motorway from Bratislava via Žilina and Kosice up to the Ukrainian border is Slovakia's most important East-West connection. The Hričovské Podhradie – Lietavska Lucka section of the motorway is located in Northern Slovakia. The 11.3 km long highway section also runs through the Ovčiarsko and Žilina Tunnels, located in the Carpathian Flysch Belt, a difficult geological environment. In total the motorway includes 11 bridges, thereof the longest near the village of Lietava Lúčka with a length of 1,042 m.

The second longest bridge is in Dolný Hričov where the left and the right deck of the bridge measure 854 m and 838 m respectively.

mageba scope

For this project mageba delivered TENSA®FINGER expansion joints of type F560X (maximum movement capacity: ± 280 mm) and F320X (maximum movement capacity: ± 160 mm) single gap joints with lengths of 30 m and 28.5 m respectively.

Due to the expected lateral movements on the 10L and 10P bridge supports, mageba proposed the installation of TENSA®MODULAR expansion joints of type LR7-LS and LR3-LS joints. The LR7 joint measures 28.5 m and has a maximum movement capacity of ± 350 mm while the LR3-LS has a length of 11.8 m and has a maximum movement capacity of ± 150 mm. Both expansion joints feature sinus plates that significantly reduce noise levels.

In addition to the joints, mageba also supplied 76 RESTON®POT bearings with maximum vertical loads of 20,000 kN and maximum horizontal forces of 1,157 kN.

Highlights & facts

mageba Products:

Type:	RESTON®POT bearings TENSA®FINGER F560X and F320X joints TENSA®MODULAR LR3 LS and LR7 LS joints
Installed:	2016-2018

Structure:

City:	Hričovské Podhradie
Country:	Slovakia
Length:	11.3 km
Owner:	NDS a.s.
Contractor:	Strabag s.r.o., Doprastav, a.s., Váhostav – SK a.s., Metrostav, a.s
Engineer:	DOPRAVOPROJEKT, a.s

D1's Hričovské Podhradie –Lietavská Lúčka section runs in North Slovakia close to the Czech border



TENSA®MODULAR LR7 LS expansion installed in the motorway



One of the installed TENSA®FINGER expansion joints

