

# Kamchatka River Bridge (Russia)

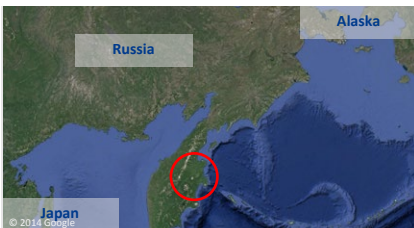


## Project description

This bridge on Kamchatka Peninsula in Russia's Far East crosses the Kamchatka River at km 168 of the Milkovo – Kamchatsky highway. The main structure over the river has a length of 445 m, with individual spans of 63 m, while the total length of the bridge including approaches is 1833 m. The bridge is located in a highly seismic area, with a seismicity of approximately 9 on the Richter scale. At the time of construction, prior to the bridge's opening in 2012, the project was the largest of its kind on Kamchatka Peninsula – a 1,250-kilometre-long piece of land that extends southwards from the main Russian landmass towards Japan.

The main river crossing has a steel deck, which was constructed by the incremental launching method (ILM).

The bridge is located on the Kamchatka Peninsula in the Russian Far East



## mageba scope

Due to the bridge's location in a seismic area, the expansion joints at three locations in its deck had to be designed to accommodate 400 mm movements, both longitudinally and transversely. TENSA®MODULAR type LR5-seismic expansion joints were selected and designed for the task, with special detailing to suit the steel deck and with floating joist beams at the middle joint due to limited space.

The joints each have 5 movement gaps, which are made watertight by mageba's special "hump seal" elastomeric profiles. These seals have an additional hump on top of the standard V-shaped seal, which helps keep the seal free of dirt and debris – especially important for remote regions where maintenance effort should be minimised.

Manufacturing of the TENSA®MODULAR expansion joints in mageba's Shanghai factory



## Highlights & facts

### mageba products:

Product:	TENSA®MODULAR type LR5-seismic expansion joints
Features:	Large transverse movement, hump seals, floating joist beams
Installation:	2012

### Structure:

City:	Kamchatka Peninsula
Country:	Russia
Completed:	2012
Type:	Steel highway bridge
Length:	445 m
Contractor:	DalMostoStroy OJSC

The joints, seen here in service for +5 years, prove great durability in this extreme environment

