

# Maas-Waal Canal Bridges (Netherlands)



## Project description

The Maas-Waal Canal was built in the 1920s to connect the River Maas to the River Waal in eastern Holland. The canal is crossed by a number of road bridges along its 13.5 km-length, which were subjected to renovation work in 2007. This work involved the replacement of expansion joints and bearings on three canal crossings of similar three-span designs – the Grafse, Dukenburgse and Hatertse Bridges. Each of these consists of two structures, one per carriageway. The renewal of their critical mechanical components ensured that the six structures will remain in service for many years to come.

## mageba scope

The existing bearings supporting the bridge decks were replaced by RESTON®POT bearings with vertical load capacities of up to 21,000 kN – one fixed (type TF), one guided sliding (type TE) and six free sliding (type TA) bearings per structure, 48 in total.

TENSA®MODULAR joints with noise-reducing “sinus plates” (type LR-LS) were installed at the free end of each bridge, six in total. The use of the sinus plates, as well as minimising noise, increased the movement allowed per gap from 80 mm to 100 mm, and 2-gap joints with 200 mm movement capacity sufficed.

## Highlights & facts

### mageba products:

Type: TENSA®MODULAR expansion joints, RESTON®POT bearings  
Features: Expansion joints feature noise-reducing surface  
Installation: 2007

### Structure:

City: Nijmegen  
Country: Netherlands  
Completed: 2008  
Type: Prestressed concrete  
Contractor: Ballast Nedam

The canal passes the town of Nijmegen in eastern Holland, near the German border



Installation of a RESTON®POT bearing – slid into position off a platform beside the abutment



A TENSA®MODULAR joint with noise-reducing sinus plates as installed on one of the bridges

