

# Y-Bridge Bischofsheim (Germany)



## Project description

The Y-Bridge is a single-track steel bridge with a double-span girder. The center support of the structure has a Y-shape and, it is flexible in the horizontal direction.

The superstructure of the bridge was supported by roller bearings originally, which are prone to break, therefore they were required to be replaced.

A quick action was needed since one of the roller bearings at the eastern abutment of the bridge had already broken.

One of the greatest challenges was to meet the project's tight timeframe to plan and prepare the construction work.

Despite of this difficulty, the replacement of the bearings was successfully completed in due time.

## mageba scope

Roller bearings can support large loads by rolling on a flat surface along one axis in the longitudinal direction of the bridge, but not in the transverse direction (rotation).

mageba's RESTON®CYLINDER bearing however, is capable of accommodating loads by sliding on a curved surface along both axes, and due to the similar geometrical features of the two bearing types only minor upgrading measures were necessary on the existing superstructure.

As the general contractor, mageba was responsible for every aspect of this complex project.

The traffic safety measures included in the scope of services were also much more complicated than originally planned due to the local conditions.

## Highlights & Facts

### mageba products:

Type: RESTON®CYLINDER bearings  
Installation: 2022

### Structure:

City: Bischofsheim / Gustavsburg  
Country: Germany  
Type: Single-track steel bridge  
Length: 48 m  
Main span: 26 m  
Completion: 2023  
Owner: DB Netz AG  
Contractor: DB Netz AG  
Engineer: Büro IWS, Idstein / Taunus

The bridge is situated on one of the most important main railway lines of the Deutsche Bahn



One of the original roller bearings that was replaced



A RESTON®CYLINDER bearing after installation

