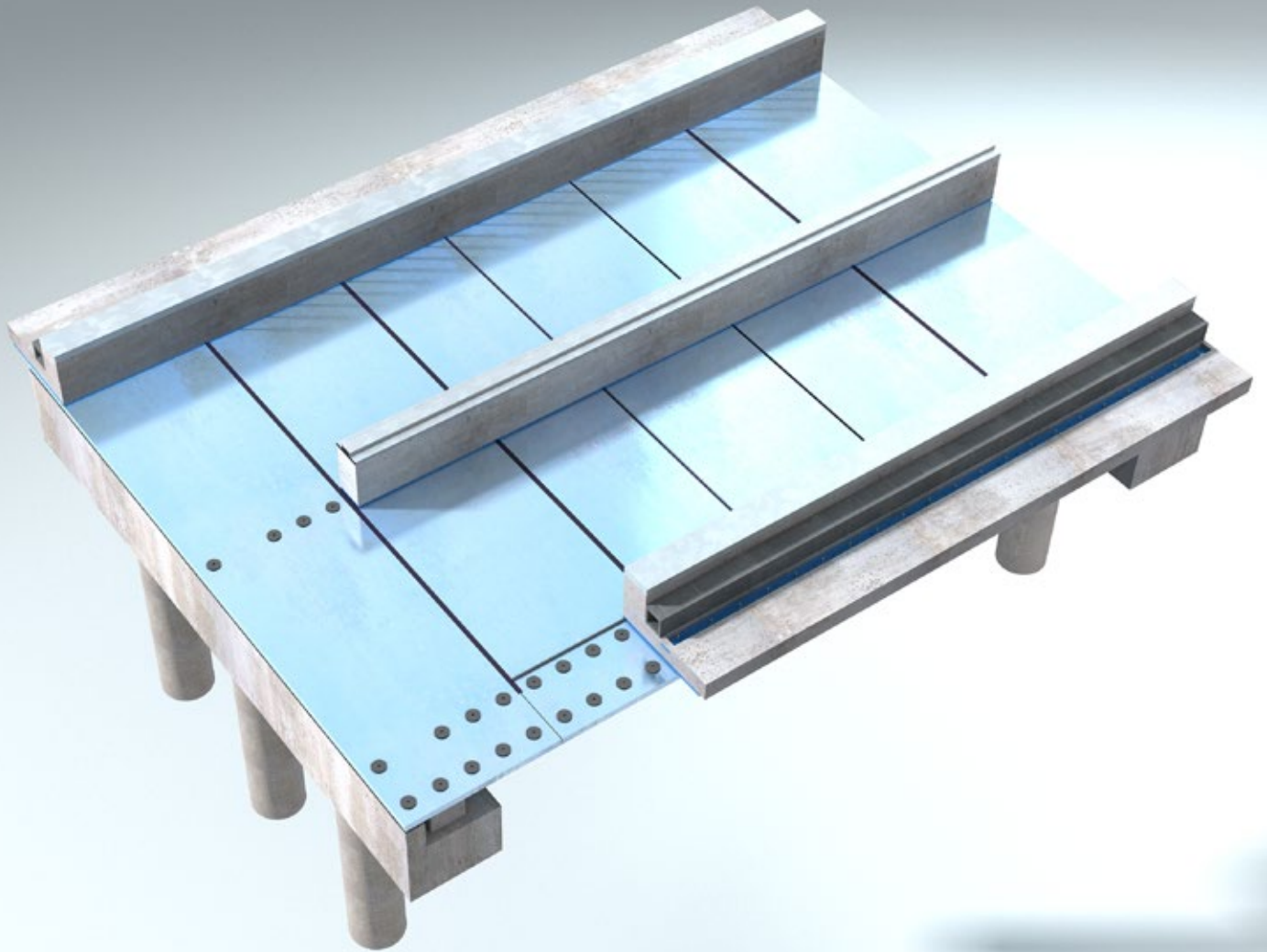


Hybrid Railway Bridge Bögl



Hybrid Railway Bridge Bögl

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Individual

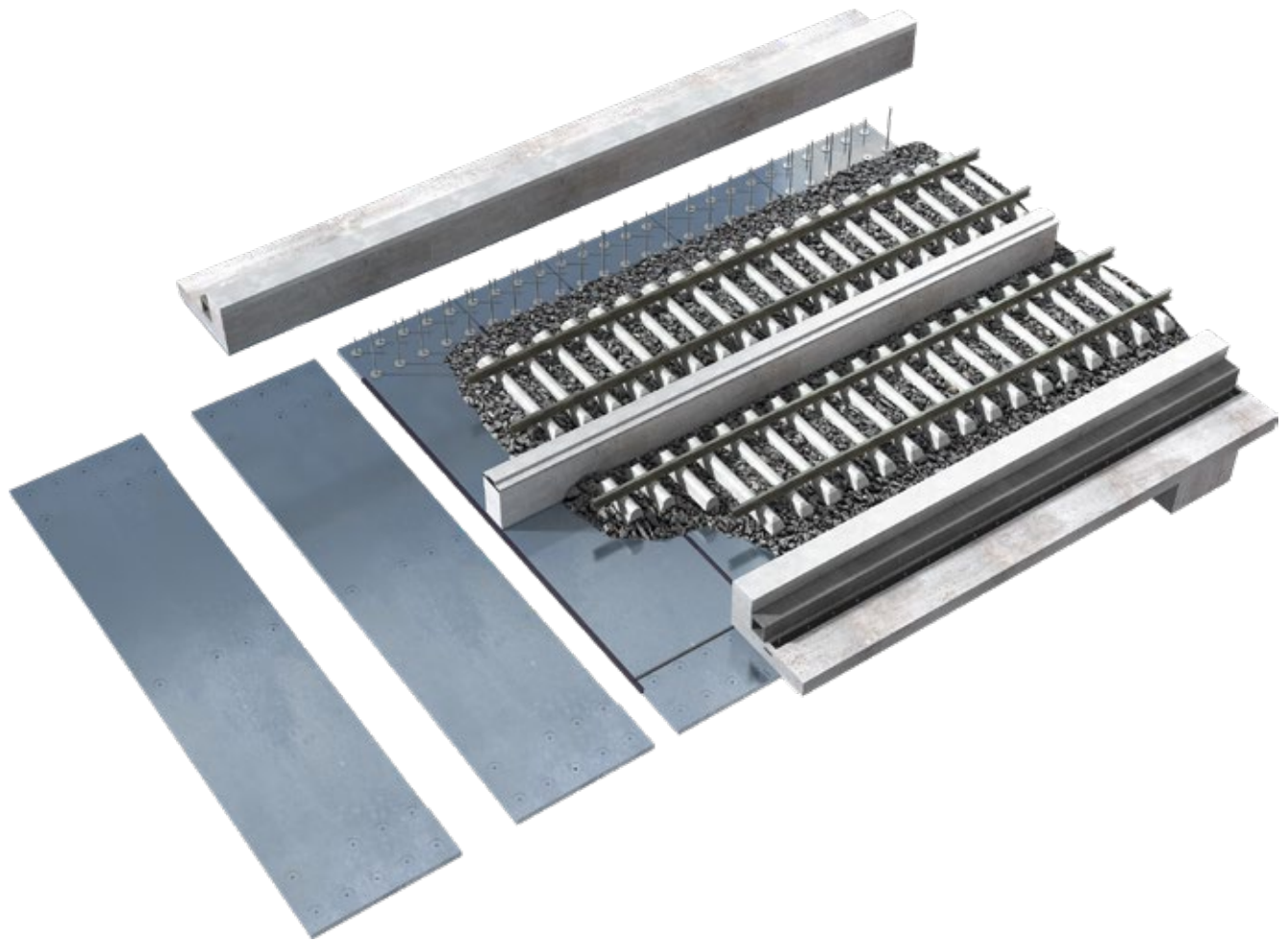
Series production

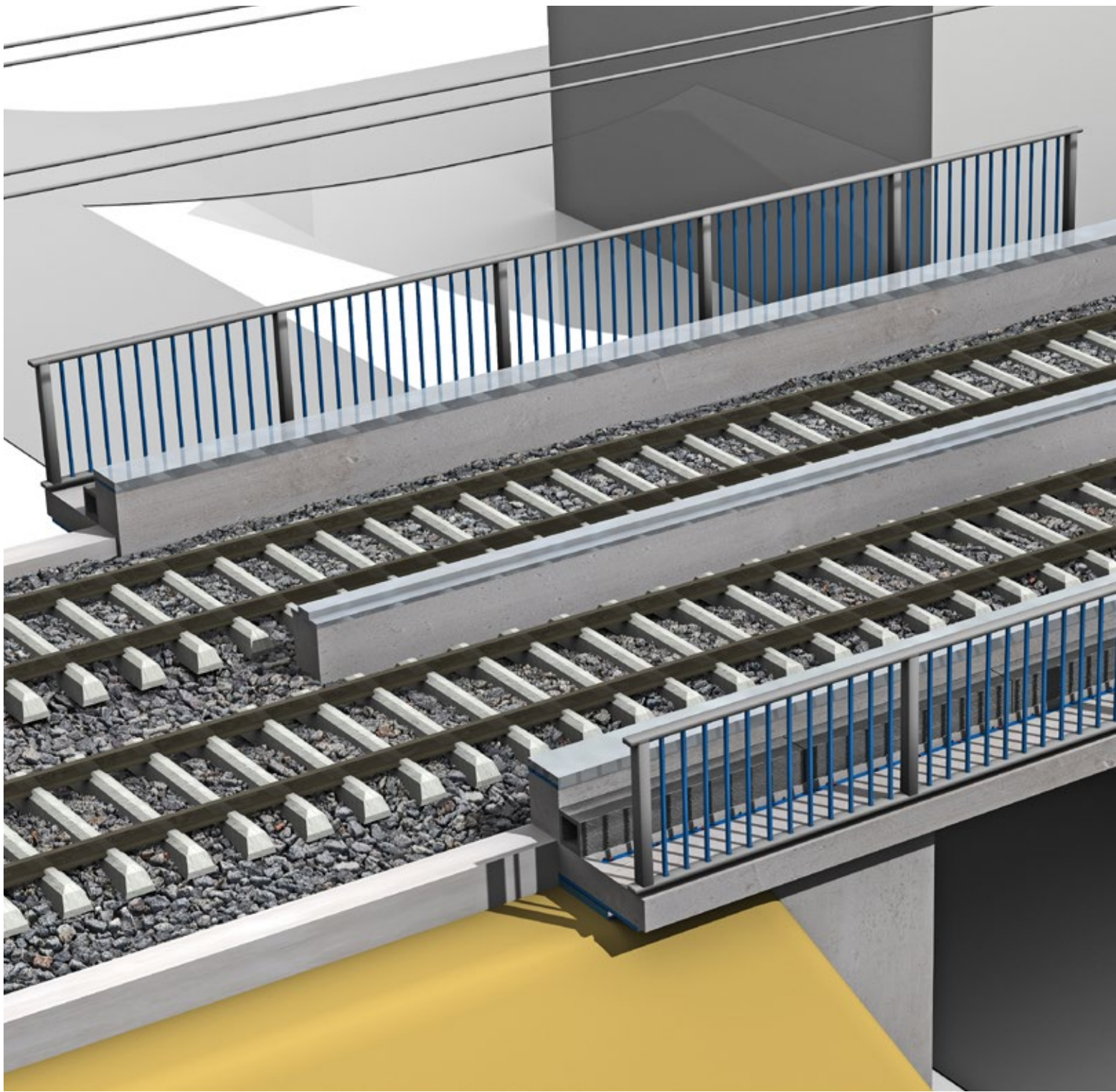
There are more than 25,000 railway bridges in Germany. Around one third of these are in poor condition, and 1,100 bridges are so badly damaged that instead of being rehabilitated only demolition and new construction are acceptable. For the replacement of structures with short spans, Max Bögl now offers a modular system, the Hybrid Railway Bridge, which fully exploits the advantages of serial production in terms of construction time, quality and economy.

To keep the bridge structures in good shape and to renew them, Deutsche Bahn is investing in the largest refurbishment programme in its history. As things stand at present, up to 500 bridges a year will have to be replaced over the next ten years. Assuming 15 to a maximum of 20 weekend closures per year, at least 25 new bridges would have to be built every weekend – an unimaginable number.

With its innovative Hybrid Railway Bridge system, the Max Bögl Group not only wants to offer Deutsche Bahn an efficient solution to this challenge, but also wants to be part of this solution during the planning phase. Designed for single and double-track railway bridges with spans of up to 15 meters and low overall height, the hybrid construction of the Hybrid Railway Bridge Bögl combines the classic advantages of steel and concrete.

Industrial production in the factory means that the individual system components can be continuously prefabricated, stored in a building yard and combined on site to form various individual structures.







Modular

Construction

All components are designed in such a way that they can be transported directly to the installation site by rail on the company's own track or by standard trucks. Only mobile cranes or a rail crane are required to lift the support beams, reinforced concrete girders and thick sheet metal – there is no need for time-consuming site installation.

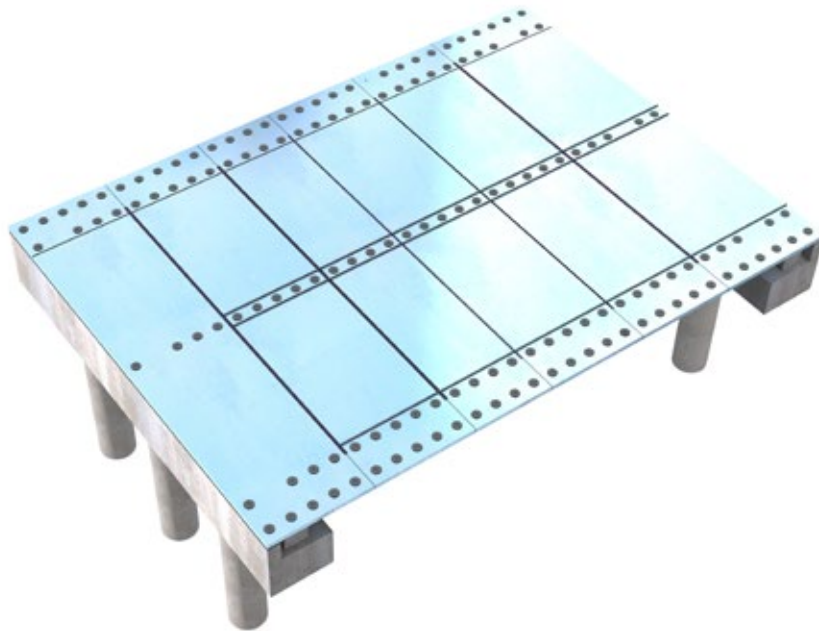
Thanks to the modular design of the hybrid bridge, individual components can be replaced at any time. In addition, the entire system can be dismantled into its individual elements and replaced.

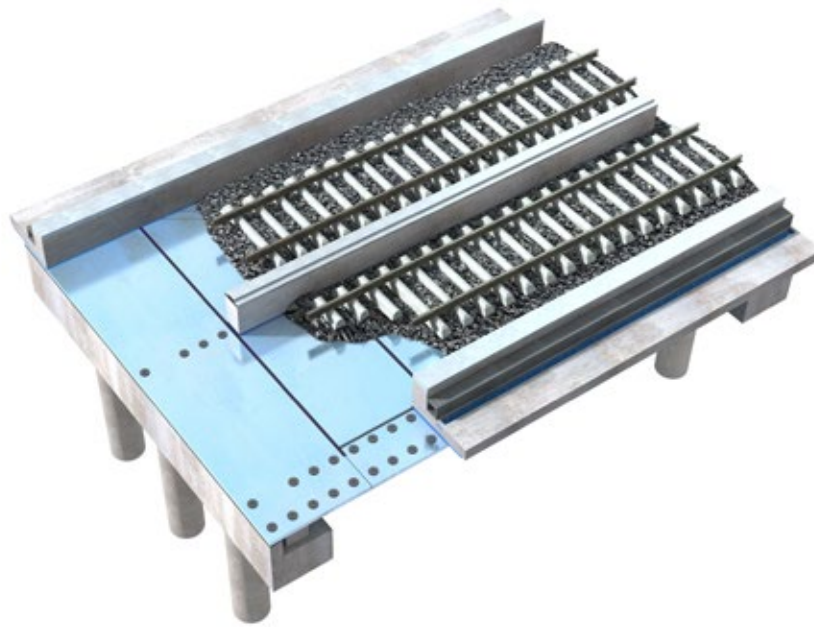
Fast

Assembly

For on-site bridge assembly, the railway line only has to be closed for two weekends under normal foundation conditions. The influence on ongoing railway operations and the burden on residents is reduced to a minimum.

In the standard construction method, the hybrid railway bridge is constructed with a ballasted regular superstructure. In special cases, continuous storage of the rails on the thick track plates can be realized.





Convincing

Advantages

The overall concept of the hybrid railway bridge is entirely designed to meet the essential requirements of replacement new buildings to be carried out at short notice:

Segmented system

- Transport by road or rail

Industrial prefabrication

- High quality and accuracy of components

Compliance with the standard superstructure of the tracks

- Easy maintenance and repair

Standardized assemblies, production and design

- Controlled production process, short construction time, just-in-time delivery and assembly
- Focused on sustainable profitability

BIM-based process

- Efficient utilization of the digital value chain during the entire building life cycle

Production and assembly also by license partners



Max Bögl Group

With over 6,500 highly qualified employees at 40 locations worldwide and an annual turnover of over 2 billion euros, Max Bögl is one of the largest construction companies in the German construction industry. Since its foundation in 1929, the company's history has been characterised by innovative strength in research and technology - from tailor-made individual solutions to constructionally and ecologically sustainable overall solutions.

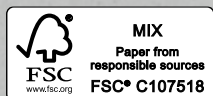
With forward-looking in-house developments on topics of our time, such as renewable energies, urbanisation, mobility and infrastructure, the Max Bögl Group is already realising solutions for the megatrends of our globalised world. Based on many years of experience and competence in high-prec-

sion precast concrete construction, Max Bögl is also positioning itself as an important driving force in the development of innovative products, technologies and construction processes.

The wide range of services and the high level of vertical integration with our own steel construction, our own precast plants, the most modern fleet of vehicles and equipment as well as our own raw materials and building materials guarantee the highest quality. The use of BIM, lean management/ production and standardised project management ensures adherence to schedules and cost-effectiveness from the initial concept idea to the finished building product.

Max Bögl Group 02/21;

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Nürnberg Luftbild, Hajo Dietz (p. 10)

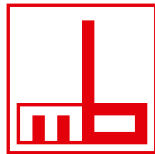


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Progress is built on ideas.