



**Trenchless installation for Deutsche Bahn:
BRUGG Pipes connects district heating to new
railway depot in Cottbus, 2025**

BRUGG

Pipes

Pioneers in Infrastructure



Project

As part of the construction of the new ICE maintenance depot in Cottbus, BRUGG Pipes was commissioned to supply and lay around 1.3 kilometers of special pipes. The aim was to provide climate-friendly heating for the new four-track hall, which will be a central location for the maintenance of Deutsche Bahn's ICE 4 fleet in the future.

The project comprised two challenging construction phases: In the first phase, a 173-meter-long microtunnel was constructed under existing railway tracks, into which four district heating pipes, each with a diameter of 30 cm, were inserted. The second phase took place in April 2025 and involved the trenchless laying of two additional pipes using the flush drilling method.

At the heart of both phases was the FLEXWELL district heating cable FHK (dimension 200/310) – a flexible, double-walled steel-jacketed pipe system developed for difficult space conditions and underground installation without open construction. A total of six drums were used, including two with 260 meters of cable each and four with 195 meters each. Due to the weight of up to 14 tons, two special transports were organized.

The project is part of the expansion of the district heating network of Stadtwerke Cottbus GmbH and represents an important step toward the heat transition and decarbonization of the railway sites.



Execution

The district heating pipes were laid in close coordination with Stadtwerke Cottbus and the planning and execution companies involved.

In the first construction phase, the microtunnel under the Deutsche Bahn railway tracks placed special demands on precision and reliability of execution. Four district heating pipes were pulled into a glass fiber reinforced protective pipe (GRP) with a diameter of 1.2 meters – a measure that was carried out entirely without trenching so as not to disrupt rail traffic.

In the second phase, the flush drilling method was used: a steel pipe with a drill head was guided through the ground from a starting pit, accompanied by an environmentally friendly flushing fluid. After the channel had been widened, the FLEXWELL pipes were pulled in directly. Thanks to the flexible design of the pipe system, the route could be adapted to the local conditions.



The logistics, including special night-time transports, were carried out with the utmost care. Thanks to the successful coordination of all parties involved and the use of state-of-the-art technology, the project was completed on schedule and to a high standard.

Potential for future projects

The project in Cottbus impressively demonstrates how modern pipe systems and trenchless installation techniques can contribute to the sustainable transformation of energy infrastructure – especially in sensitive, inner-city or traffic-congested areas.

The FLEXWELL-FHK pipe system is a sustainable solution that offers high flexibility, self-compensation, and durability—ideal for similar projects in rail or utility infrastructure. With this project, we are once again proving our reliability as a strong partner in the heat transition.

