



## FLEXWELL-FHK Project DE-Solingen, 2025

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Pipes

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## Project

Following an accident (pipe damage) in a district heating duct pipe in Herbergerstrasse in Solingen, Technische Betriebe Solingen (TBS) had to install a new heat supply pipe at short notice. The project placed high demands on planning and logistics, as the new pipe had to be laid under existing buildings and on a slope. Throughout the entire construction phase, the affected customers were supplied with three mobile heat generation systems. In close consultation with the planning office Gertec and Rohrleitungsbau Niederrhein, the client opted for a combination of different pipe systems from BRUGG Pipes in order to optimally meet the various technical requirements.

FLEXWELL-FHK district heating cables with dimensions of 200/310, CASAFLEX cables 48/126, and PREMANT rigid plastic-coated pipes with dimensions ranging from DN 80 to DN 150 were used. Due to the difficult route conditions, the new connection was realized via a flush drilling in two sections of approximately 130 meters each—a solution that is particularly suitable for confined and sensitive construction areas.

The supply pipe was laid at the end of September, and the return pipe was completed a few weeks later. After laying, the FLEXWELL-FHK was connected to the existing KMR network, while the house connection was implemented using the CASAFLEX system.



## Execution

BRUGG Pipes was responsible for all technical planning, preparation, and construction coordination. In addition to supplying the products, BRUGG Pipes also handled the professional installation of the FLEXWELL-FHK. Working closely with the planning office and the pipeline constructor, a solution was developed that took into account the special topographical and structural conditions of Herbergerstrasse.

The flush drilling under the existing buildings was the most technically challenging part of the project. In order to pull the pipes in safely and without tension, the drilling was divided into two sections. Special pull heads designed for pulling FLEXWELL-FHK pipes were used for this purpose. Precise control of the pulling forces was ensured by the flush drilling machine. This approach prevented damage to the pipe systems and ensured the long-term service life of the pipes.





### Potential for future projects

Throughout the entire construction phase, the focus was on maximum quality of execution and safety. All work steps were carefully monitored to ensure a perfect connection between the different pipe systems – FLEXWELL-FHK, CASAFLEX, and PREMANT. The products used were coordinated with each other so that both the hydraulic and thermal requirements could be optimally met.

Thanks to precise planning, experienced specialists on site, and close coordination between all project participants, the work was completed on schedule, efficiently, and without interrupting the heat supply. The result is a high-quality technical solution that not only repairs the acute damage but also contributes to the long-term operational reliability of the Solingen heating network.

The successful implementation of the measure in Solingen ensured that heat supply in a sensitive urban area was quickly and permanently secured. The combination of FLEXWELL-FHK, CASAFLEX, and PREMANT proved to be a technically and economically convincing solution that offers maximum operational reliability and flexible application.

The project illustrates how BRUGG Pipes can implement efficient and sustainable infrastructure even under challenging conditions through precise planning, high-quality system solutions, and close coordination with all parties involved.

