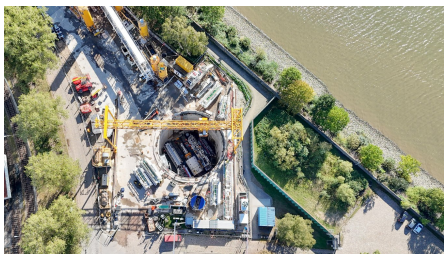
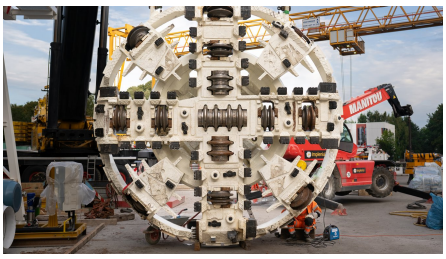
Reference

District heating tunnel – West (FWS-West) Southern Line









SHORT DESCRIPTION

Wärme Hamburg is a 100% municipal heat supplier and, with the "FWS-West project", intends to install a district heating line from the new CHP plant to be built at the Dradenau site through the Waltershof port area, in a new tunnel structure under the Elbe through to the existing District Heating West Line in Hamburg-Bahrenfeld in the Notkestrasse and to connect it there.

THE PROJECT

The tunnel / Elbe River crossing section, T1 works, essentially includes the start and target shafts as well as the tunnel construction including the associated buried connections to the connection points. The pipeline length of the district heating route is approx. 1.5 km and consists of:

- Approx. 250 m of underground KMR route DN 800/1100
- Approx. 1.25 km of a DN 800 steel pipe route with 150 mm of insulation and sheet metal cladding in the tunnel and shaft construction sections, of which 1.16 km is a only for the tunnel section.

The watertight excavation pits for the start and end shafts have been planned as a diaphragm wall construction with a back-anchored underwater concrete floor. The excavation pit for the starting shaft has a depth of approx. 30 m below ground level and an outer diameter of approx. 25 m. The excavation pit for the target shaft has a depth of approx. 35 m below ground level and an outer diameter of approx. 16 m. The tunnel is being driven as a segmental drive. After completion of the excavation pits and the tunnel, the respective shaft structures will be erected in the excavation pits in a waterproof construction. After completion, the stair tower, several steel mezzanines, and the entire district heating technology (pipes, shut-off valves, ventilation, control, etc.) including all necessary ancillary equipment are installed in the shaft structures. Above the site, the launch shaft will have a small operations building to control the system.

FURTHER INFORMATION

Pictures: © Wärme Hamburg GmbH

Press article

FACTS

Location	Hamburg , Germany
Status	Under construction
Construction volume (value of our services)	75 M CHF
Start of construction	January 2021
Completion	December 2026
Building owner	Wärme Hamburg GmbH
Length	1165 m
Other tunnelling	✓
Civil engineer	WTM, Babenderde Ingenieure

SERVICES

- Tunnelling
- Special Foundations
- Civil engineering
- Infrastructure