



# Tunnel trough repair, Mönkedamm, Hamburg

## Data and facts

Company	PORR Spezialtiefbau GmbH
Type	Retrofitting foundations, Rehabilitation
Runtime	06.2021 - 07.2021
Principal	Fr. Holst GmbH & Co. KG

[Project report online](#)

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# 105 micropiles replace oaken piles dating back to the 1920s

The Hamburg Chamber of Commerce's HKIC building, which was constructed above the tunnel exit in 2014, added to the challenges of the project by creating an extremely restricted work site in the already constrained inner-city location. Each micropile measures up to 12m long, with an additional casing pipe to prevent kinking in the saturated ground. In some places the piles had to be inserted with a maximum clearance of just 5.8m. The team used a special device for this purpose: the steel pipe was fitted with connectors and bored in by the drilling equipment. As there was no ramp suitable for vehicles leading to the drilling area, a 250t mobile crane was required to manoeuvre the drill in between the buildings and into the trough. The micropiles were inserted both lengthwise and crosswise in between the existing timber piles. The excess cement slurry had to be contained to prevent contamination of the flowing waters of the canal below. Even the assembly of the measuring equipment for the load testing was made unusually complex by the limited overhead clearance and lack of space to use a crane, forcing the team to apply their many years of experience and expertise to the task.

## Impressions



## Image notes

1

Tunnel trough repair, Mönkedamm, Hamburg

The micropiles were installed in the tunnel exit.

2

Tunnel trough repair, Mönkedamm, Hamburg

105 micropiles replace oak piles in the Mönkedamm tunnel trough renovation project

Do you have questions about the project or would you like to learn more? Feel free to contact us for further information.

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