Project Owner:

SEPA Objekt Bruchsal GmbH

Client:

GP Papenburg Hochbau GmbH

Quick Info:

Deep foundation in cellar of city townhall in the course of remodelling works

Technical Information:

System: Ischebeck TITAN/steel

diameter 52/26 mm, 73/53

mm and 73/45 mm

Quantity: 46 pcs. Length: 15 - 20 m Service Load: up to 600 kN

Technique: self-bore non-percussive

flush drilling

Building Ground: limestone/clay
Time Frame of Works: January 2010

In order to make commercial use of the lower floors of the city townhall in Bruchsal, Baden-Württemberg, the project owner prompted a complete overhaul of the interior spatial structure. During this extensive effort load bearing elements were removed and replaced by new shear walls. It was our job to produce the deep foundations for these walls.

Our mini drill rig of type KR 702 was ideally suited for working in these confined spaces. Powered by a separate hydraulic aggregate, which we positioned outside of the building for practical and for health reasons, the drill rig had been reequipped with a shortened drill mast by our technical engineering division in order to meet the local height restrictions of 2,40 m (see Image 1).

Due to massive limestone layers in some parts we were only able reach the required bore depths with the help of specialty bore crowns that we had especially manufactured for this project. The tight positioning of the pile heads to each other as well as to the other building elements demanded a high degree of affinity in order to avoid any damages to both our own piles and to the existing building structures. Moreover, unusual measures to mount the ca. 4,0 to steel beams into position had to be taken in order to conduct three load tests in the cellar (see Image 2). But the successful results of these tests gave us the confidence that all our efforts and use of our combined muscle power would pay off in the end.





