

Groundwater lowering



AARSLEFF

Aarsleff carries out all types of works in connection with groundwater lowering:

- filter wells
- bleeding wells
- monitoring wells
- reinfiltration wells
- well points

Drilling

Our large range of equipment comprises several types of drilling rigs with different kinds of drilling methods. We are able to carry out drillings with filters in diameters ranging from 150 to 400 mm. In connection with the drilling work, we take soil samples.

Installation work

We carry out installation of pumps in filter wells in all dimensions, complete with pipe systems and electrical installations. When working on groundwater lowering projects, where a failure in the system may cause great damage, we install an alarm and emergency power supply system. The alarm system registers any irregularities, and in case of a failure, a technician is called immediately. We carry out operation and maintenance work of the installed groundwater lowering systems, and on a weekly basis, we report the measured water levels and the amount of water that has been pumped out.

Pumping test

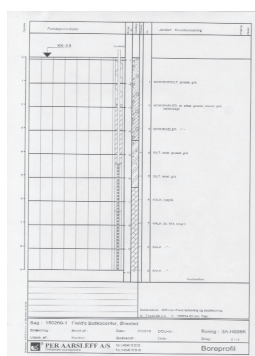
After the drilling work, the filter well is cleaned and a pumping test is carried out. The test results are monitored and stored in a data logger system. The results are then processed in special developed software determining the efficiency and transmissivity of the filter well. Pumping tests can be combined with a system test in which the effect of the entire groundwater lowering system is tested. A rise test finalises the system test.

Reinfiltration system

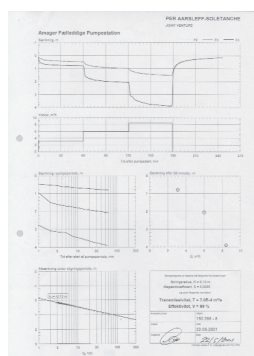
In urban areas where old buildings are often founded on wooden piles, groundwater lowering may cause oxidation and deterioration of the wooden piles resulting in settlement damage. To avoid this, we can reinfiltrate the pumped water under the adjoining buildings to ensure that the groundwater table remains within its natural fluctuation limits outside the working area. Reinfiltration systems can be carried out as filter wells as well as excavated filter trenches.

Project Development & Design

The specialists of Aarsleff's design department carry out calculation of the expected water volumes and the design of the necessary groundwater lowering system.



Borehole log.



Pumping test report.

Aarsleff's Piling division is one of Europe's leading piling contractors, and we undertake a wide variety of piling, drilling and foundation projects in Denmark and abroad. We have offices in Poland, Sweden, Germany and the UK.

Our extensive fleet ranges from mini piling rigs to large specialised machines and covers fully hydraulic piling and drilling rigs as well as cranes and vibrators.

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