



Principal: The New Rijksmuseum
Main contractor: BAM Civiel bv
Execution period: 2009-2010
Machine: AVN
Pipes: steel
DN: 300 - 800 mm
Length: 7 - 24 m
Amount of pressings: 45 p
Depth: 2 - 5 m below ground level



The New Rijksmuseum: a total renovation

The more than 200 year old Rijksmuseum, on the edge of the old inner-city of Amsterdam, with its 80 halls and 1,5 km long running distance, was in desperate need of a fundamental renovation. 1,2 million visitors and 900.000 exhibited masterpieces annually require facilities adjusted to the needs of the modern era. Therefore a total renovation has been decided in 2000 with the preservation to maintain its original authenticity. The renovation will be fully completed by the end of 2013.

The construction of a climate system is one of the new foreseen technologies. Acclimatized air from the new energy basements must circulate throughout the entire Rijksmuseum for optimal preservation of all the present art-treasures. For this purpose 45 pipe jackings underneath the walls of the museum have been executed.



Pipe jackings part of the energy installation

All 45 pipe jackings are located between -2m and -5m NAP and go through the ruins, sand, peat and other piled up material where the Rijksmuseum was built on 200 years ago. Connections with this method are made between the museum halls and the underground ring round the museum where all installations are stored. The longer pipe jackings (24m) arrived in the courtyards. The short pipe jackings (8m) arrive in the basement, the vaulted basements, where receiving pits are made for this occasion. The diameters of the pipe jackings vary between 300 and 800mm.



Drilling through existing foundations

The entire Rijksmuseum is founded on approximately 10.000 wooden poles. It was impossible to fully avoid them during the execution of the pipe jackings. Therefore, a careful inquiry was necessary to find out which poles would be drilled through. These had to be overcome first, through placing of new cross beams and pole foundations. This was necessary to guarantee the stability of the museum at any time.

Arrival in basements

As if the challenge wasn't big enough, all of the pipe jackings arrived underneath the roof. This means that the 3 ton weighing rotation head with matching material needed to be recuperated in very tiny rooms (basements) and brought/driven/lifted up with the adjusted lifting material every time.