

Dewatering sludge, coming from the cellar of the Rijksmuseum with Geotube®

Foreword:

In 1885, the first National Museum of Holland opened its doors in Amsterdam. The architect Cuypers designed the building in a mixture of both Gothic and Renaissance styles. Since the opening, the original building has been extended by the construction of new wings, and changes have been made to Cuypers' original design.

An ongoing project to restore the Rijksmuseum started in 2003 and is scheduled for completion in 2010.



TenCate Geotube®



The problem:

Part of this total restoration is the replacement of the floors in the so called "Binnenhoven". These new floors will be located at a much lower level than before – at minus 8 meters. Reaching this level involved removing the soil by dredging, partly using a dry-dredging method, partly below ground-water level, where a great deal of sludge had to be removed before the new floors could be placed.

The solution:

The sludge was removed by divers using special pumping equipment. The sludge, together with a lot of water, was pumped to street level, beside the Rijksmuseum. There, in a small garden, after being mixed with polymers, the sludge was pumped into Geotube® for containment and quick dewatering. The Geotube® technology was selected for its ability to handle large volumes of water in a very short time, allowing the project to be completed quickly on a relatively small area. Thanks to the involvement of the engineering company Promeco from Beek en Donk, the project was set to work automatically, thus requiring a minimum of personnel and energy, whilst ensuring maximum effectiveness in dewatering and containment of the sediments.

