

**Marine Structures****Reference Details:**

Owner City of
Copenhagen +++
Structural Design
CowiConsult +++
General Contractor
Phil & Sbn A/S +++
Pile Installation
Brueckner Grundbau
GmbH

DSI Services Supply of
517 double corrosion
protected *GEWI*[®] Piles
dia. 63,5mm BSt
555/700; Technical
support.

**First *GEWI*[®] pile application in Denmark****Copenhagen, Denmark: Retaining Tank in Port of Copenhagen**

In 1994 Copenhagen planned to build several retaining tanks for contaminated drainage water. One of these tanks, the Mellembassinnet, was to be located immediately adjacent to the Baltic shore line. Since the tank was below sea-level, the structure had to be anchored against uplift.

The engineers chose *GEWI*[®] piles for their reliability and economy. Ø 63.5 mm double corrosion protection (DCP) *GEWI*[®] piles were installed in a single 16.7 m length without the need for any couplers. Twelve piles were installed to test the soil capacity, each consisted of two Ø 40 mm and one Ø 50 mm single corrosion protected threadbar. After successfully testing the tension capacity 517 production piles were driven in a 3x3 grid.

The test-piles were installed in December 1995. The tank piles were placed between April and June of 1996. Manufacturing and supply of the *GEWI*[®] piles was awarded to DSI Austria. On-site technical assistance was conducted through AAGE Christensen A/S, the DSI representative in Denmark.