

FLANDERS CONTAINER TERMINAL CONSTRUCTION OF THE SOUTHERN QUAY-WALL

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The new exterior dams and the LNG-terminal of the port of Zeebruges were constructed between 1987 and 1988.

In addition, sand from the dredging operation for the deepening of the shipping route along Flanders coast, was stocked in the lee of the western exterior port dam.

This new western port area was, from the very start, designed to install two mooring docks: the so-called Wiegelingen dock in the north and the Container dock in the south.

The execution of one of the docks started in 1991 with the construction of the largest part of the southern quay-wall, the so called container quay.



The total length of the wall is 1023 m and the effective water depth is minimum 15 m.

The quay-wall has been executed by means of caissons in reinforced concrete. They are constructed in a excavation yard , built at a level of + 3.5m.

The total height of the caissons is 25m , which means that they will be situated between the levels - 21.5 till + 3.5. The exterior diameter of the caissons is 29 m and the wall thickness 0.75m.

The total number of caissons is 33. They are placed at an axis distance of 31m. Afterwards, the caissons are connected by means of reinforced concrete walls, constructed according to the method of sheet-piled sleeves.

The superstructure is realized on top of the caissons. It consists of a slab of 1.50 m thickness, with a front beam equipped with the classical quay-wall equipment's (ladders, fenders and bollards). The runway for the gantry is installed on top of the front and the back beam.

The space in-between the two beams is filled up with sand. The width of the runway is 12m.

The quay-wall has been nearly totally executed in reinforced concrete: about 130 000 m³ concrete and 13 000 000 kg reinforcing steel.

During and after the execution of the works, the yard behind the quay has been filled up till a level of +8m. This needed about 4 300 000 m³ earth moving. On this site the actual installations of Flanders Container Terminal are built.

The water depth in front of the quay will be always minimum 15 m, which is sufficient for the mooring, loading and unloading of the largest container ships.

In a first phase, the dock has been realized with a bottom width of 150 m, in order to enable lateron the construction of the northern quay-wall on dry land.

The final width of the finished dock will be 300m, with a total useful length of 1200 m at the southern side.

The global execution delay of the works was 32 months.