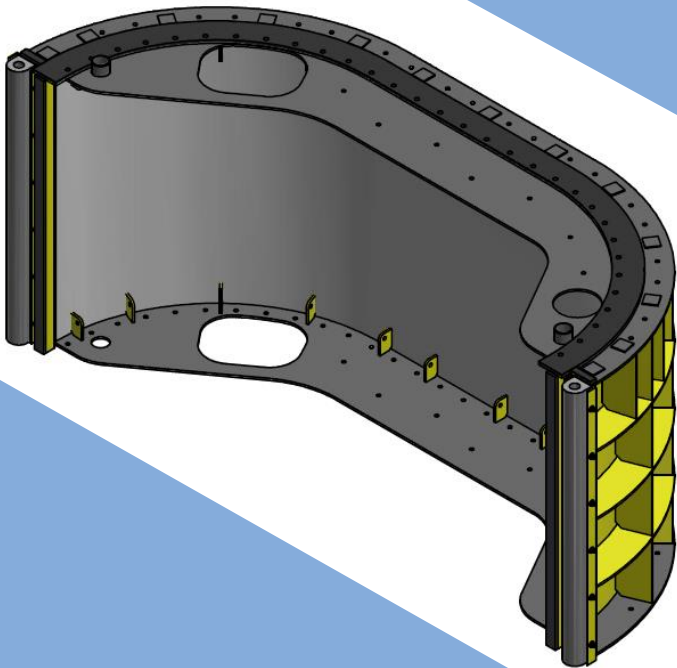


Field of expertise: Civil Engineering
Client: DCN Diving B.V.



Technical data:

- ◆ Total height: 14 meter
- ◆ Width: 4,4 meter
- ◆ Depth: 1,4 meter
- ◆ Dry pumping height: 13,5 meter
- ◆ Weight: 35 ton

Cofferdam Scheldekaai, Antwerp (Belgium)

Project description

At the end of the 19th century the shore of the Scheldekaai became a quay wall. The quay wall consists of concrete filled steel caissons with the dimensions 25m x 9m x 2,5m (l*w*h) on which a masonry wall is built. The retaining height is approximate 14 meters. The space between the caissons, the joint, is filled using a cementitious material. The quay wall is covered by, for Antwerp typical, blue stones.

Through the ages the quay wall is settled because of the soft subsoil. Due to the extensive usage of the quay wall the blue stone cover is not always in a good condition so the authorities have decided that it is time to renovate the quay wall. DCN Diving has asked MH Poly to design a cofferdam for the renovation of the quay wall. The cofferdam acts as a shelter for divers because of the relatively large currents in the Scheldt. If needed to water inside the cofferdam can be pumped outside so the personnel can work and inspect the joints in dry.

The cofferdam consists of a flexible system of seven detachable sections in order to be able to adjust the height of the cofferdam when desired.

Project activities

- ◆ Design of a cofferdam that fits the dimensions of the quay wall considering the roughness and the fact that the quay wall has settled. The design includes a watertight solution and method for emptying the cofferdam.
- ◆ Inventing a practical and smart system where the cofferdam can remain in water when the cofferdam is being transported from one joint to another.

