LNG terminal in Swinoujscie in Poland

Aarsleff is constructing a three-kilometre-long breakwater

In cooperation with German Hochtief, Dutch Boskalis and the Polish company Doraca, Aarsleff is constructing a three-kilometre-long breakwater in Swinoujscie in the north-western Poland. The breakwater is established for the construction of a Liquified Natural Gas (LNG) terminal, and Aarsleff participates in the piling, concrete and rock work.

3,000-metre-long breakwater
The project is carried out for the client Maritime Office in Szczecin, and supervision of the project is carried out by Grontmij. The breakwater consists of a rock core, filters and a protective layer of 30,000 Xbloc® concrete amour units. On the inner side of the breakwater, we drive a 2-kilometre-long combi wall of DN1220 mm pipes in lengths of up to 29 metres serving as access road and installation site together with the concrete superstructure. The retaining wall is anchored by 37-metre-long inclined piles driven with an inclination of 1:1.

During the construction period, several jack-up platforms serve as work platforms for the piling work. In addition, we have several piling rigs and a large number of barges and not least a number of spud barges from which we place the rock material and the Xbloc® concrete amour units. The rock material for the project is imported from Sweden and Norway, and the concrete armour units are cast by Aarsleff’s branch in Poland as a sub-contract for the consortium.

350-metre-long outer pier
In addition to the 3-kilometre-long breakwater at water depths ranging from 0 metres at the beach to 19 metres at the pier head, a 350-metre-long outer pier is to be constructed as wave wall on the western side of the entrance to the new LNG harbour. This new outer pier, called Western Groyne, is built at right angles to the existing eastern pier.

The contract value concerning the construction of the breakwater and the dredging of the harbour amounts to approx. DKK 1.2 billion, and Aarsleff’s share of the total project amounts to approx. DKK 400 million or approx. 33 per cent.
<table>
<thead>
<tr>
<th>Data</th>
<th>Type of contract</th>
<th>Client</th>
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<tbody>
<tr>
<td>• 3,000-m-long breakwater and a 350-m-long pier to protect the entrance&lt;br&gt;• 1,550,000 tons of rock material&lt;br&gt;• 62,000 m³ of concrete for the protective layer&lt;br&gt;• 21,000 tons of tubular steel pipes, sheet piles and anchors&lt;br&gt;• 91,000 m³ of concrete for the superstructure and wave wall&lt;br&gt;• 6,260,000 m³ of dredging.</td>
<td>Main contract</td>
<td>Urzad Morski w Szczecinie (Maritime Office Stettin)</td>
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<td>Contractor</td>
<td>Cooperative partners</td>
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<td>Aarsleff, Construction and Piling</td>
<td>Boskalis International bv&lt;br&gt;Hochtief Construction AG&lt;br&gt;Korporacja Budowlana Doraco Sp. Z.o.o.</td>
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<td>Construction period</td>
<td>Contract value</td>
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<td>May 2010 to February 2013</td>
<td>DKK 1.2 billion</td>
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**Type of contract**
Main contract

**Contractor**
Aarsleff, Construction and Piling

**Cooperative partners**
- Boskalis International bv
- Hochtief Construction AG
- Korporacja Budowlana Doraco Sp. Z.o.o.

**Construction period**
May 2010 to February 2013

**Contract value**
DKK 1.2 billion

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