



## FEATURES

Client	Port of Helsinki
Location	Vuosaari Harbour Centre, Helsinki, Finland
Period	September 2011 – May 2012
Contractor	Terramare Oy

## SCOPE

Construction of a 180 metre long AP jetty, six dolphins and two ramps.



**A** View of the AP jetty.

**B** View of the Vuosaari Harbour Centre.

## QUANTITIES

Jetty, total length	180 m
Steel bridges	6 steel bridges, each 3 x 24 m
Dolphins	6 concrete dolphins
Tubular steel piling works	D762/610 738 m / 42 piles
Concrete ramps	2 ramps, each 30 m
Steel structures	200 tonnes
Concrete structures	1,390 m <sup>3</sup>

## MAIN PLANT

Floating crane	Kahmari 2
Drill barge	Pora-Eero
Self propelled barge	David
Piling unit	Junttan PM25
Tugs	Koli, Hevi
Work pontoons	Paalu, Upi
Other plant	Grove 635, Volvo L90



**INTRODUCTION**

The 180 metre long AP jetty, built at Helsinki’s Vuosaari Harbour, was implemented on the basis of Terramare’s alternative plan. The jetty increased the harbour’s capacity with two berths for Ro-Ro cargo vessels. The contract also

included two 30 metre wide concrete ramps, built on both sides of the jetty.

**CONSTRUCTION OF THE AP JETTY**

Terramare began the AP jetty contract in September 2011. The project and its ramps was completed in May 2012. The 180 metre jetty was implemented with six concrete dolphins, which were anchored to the bedrock with tubular steel piles. The dolphins, built at 30 metre intervals, are linked to each other with three metre wide and 24 metre long steel service bridges installed at the surface height of the jetty along its whole length.

The dolphins, cast in-situ, were anchored with six tubular steel piles, and a larger, end dolphin with 12 piles. Vertical and inclined tubular steel piles around 20 metres long were anchored in the bedrock from their upper end to a depth of around 9 metres. Finally, the piles were filled with concrete.

**AN EXTENSION TO EARLIER CONTRACTS IN VUOSAARI HARBOUR**

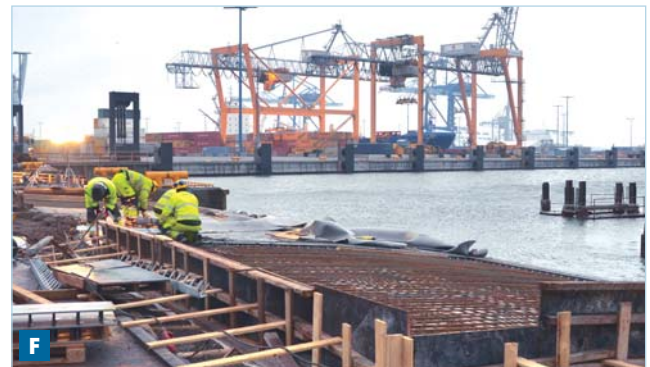
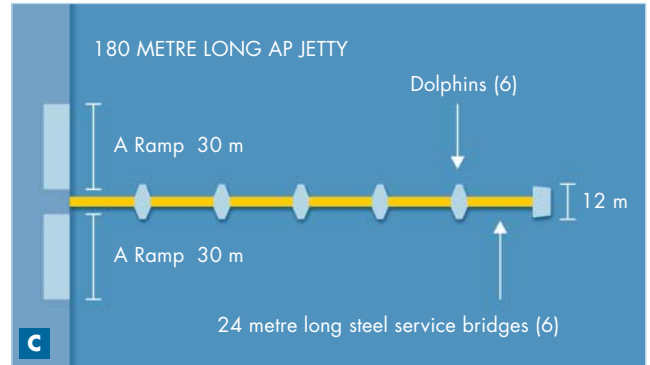
The construction of the AP jetty and the concrete stern gate ramps on both sides of it was taken into account already in 2008, when Terramare built the area’s retaining quay walls. At that time, envisaging the current jetty project, coping beams designed to be removed were installed at the site, and these significantly facilitated the start of the ramp work. In addition, dredging of the area performed in the earlier contract also facilitated the immediate start-up of jetty construction. Please see our project leaflet of Vuosaari Harbour Centre Project in Helsinki, Finland 2003-2008.

**THE FULLY EQUIPPED JETTY**

Terramare delivered the AP jetty to the Port of Helsinki fully equipped, including fenders, bollards, piping for electrical cables, service bridge railings, jetty gates and lighting. The jetty site employed around 15 expert Terramare personnel.

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**VUOSAARI HARBOUR CENTRE,  
HELSINKI, FINLAND**  
AP JETTY 180 M, SIX DOLPHINS AND TWO RAMPS



**C** Structure of a 180 metre long AP jetty with six dolphins and two ramps.

**D** Tubular steel piling works.

**E** One of the six steel bridges.

**F** Construction of a ramp.