

**Project Name** 

Port of Fujairah Oil Terminal 2, Phase 2

**Main Subcontractor** 

Athena SA

Client

Port of Fujairah, UAE

Engineer

MUC

Location

Fujairah, United Arab Emirates

Product

SSAW Pipes, H Beams and Sheet Piles

Total Tonnage

8,445 MT

**Delivery Date** 

2013

#### INTRODUCTION

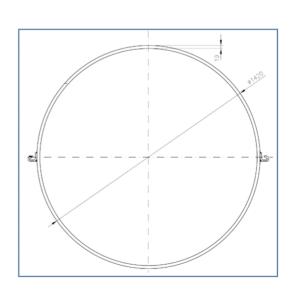
This project includes the construction of new quay wall for the extension of Port of Fujairah Oil Terminal 2, Phase 2, Berths 8 and 9. The total length of the quay wall is 890m and has a retaining height of 23.6m. The structure is a combi wall with driven OD1420mm tubular piles and sheet pile infills with raking H piles used to provide the support for the deep berth.



### **ESC SCOPE OF SUPPLY**

### SSAW PIPES, H BEAMS & CLUTCHES

ESC was awarded with the supply of SSAW pipe piles (OD1420mm x thk19mm x Length 30.5m) with material API Spec. 5L Grade X65 welded with ESC-C9 clutches and hot rolled H-beam (800mm x 300mm x 14mm in length 26m) with material BS EN 10025 Grade S450J0. Sheet piles were also supplied in singles from Nippon Steel and were type IIIW. The sheet piles were then joined into triples and painted and driven as one 1.8m wide section.



## **SSAW PIPE FORMING**

Pipe piles were manufactured in accordance with ASTM A252 standard. Welding is carried out in accordance with AWS D1.1/ D1.1M, 100% VT and 100% UT performed on all full penetration weld seams.









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## **CLIENT AUDIT**

Client representatives performed product audits during the manufacturing process. The scope of audit include SSAW pipe production process, clutch welding process, witness clutch pull-out test, and sample selection, cutting, and testing from steel pipe.







## **ESC C9 CLUTCH**

Various pull-out tests are carried out to ensure the reliability of ESC designed hot-rolled C9 clutch.



















# FINISHED PRODUCT



## **CARGO SHIPPING**









## **ON-SITE BLASTING & PAINTING**

ESC UAE team was responsible to perform on-site blasting & painting for the entire products supplied under this project (Sheet pile, H -beam and pipe pile). Type of paint: Jotamastic 87 (Jotun) Surface cleanliness: Sa2.5 Total DFT: 480 micron.









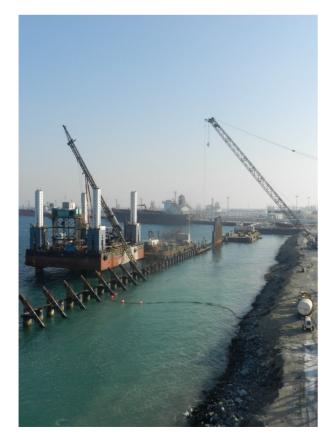
## **SHEET PILE THREADING**







## **ON-SITE INSTALLATION**







## **ON-SITE INSTALLATION**

