



Key achievements

- Accelerated programme lead to early completion of the quay wall structure.
- Innovative combination of CFA piles and jet grout columns created a quay wall structure that could be completed within the programme demands.

• The project

A new facility to dock a floating dock was required with 12.5m CD water depth. This required dredging of 90,000m³ and the construction of a 185m quay wall. Additional works incorporated the closing in of an unused slipway and earthworks, paving and revetment works.

• The challenge

The works had to be carried out in a shortened contract period in a very confined construction site. Dredging works had to be co-ordinated with quay wall and peripheral works to prevent interference.

• The solution

The quay wall construction was shortened with the method used and then accelerated further by using high specification guides.

Scope of Works included: 171 x 900mm diameter CFA piles 24m deep; 171 x 1 200mm diameter jet grout columns 16m deep; 65 x 63mm steel tie bars, which had to be fixed to various deadman anchors incorporating pairs of 900mm x 10m CFA piles, existing slipway retaining walls and existing reinforced concrete slabs; and a 180m long x 5m high quay wall capping beam.

Application
Quay Wall

Technique
CFA Piles and Jet Grouting

Market
Near Shore Marine Works

Client
Dormac

Main contractor
Franki Africa

Contract Value
€ 4.3 million

Keller business unit (s)
Franki Africa – Central Region, Kwa-Zulu Natal