

# Case Study



- » Project name **Jafurah Desalination Project (JFD)**
- » Client **Future Technologies for Water Desalination Company**
- » Consultant **TRACTEBEL Engineering**
- » Contractor **SEPCO – Branch of SEPCO Electric Power Construction Corporation**
- » Applicator **Dejian Alduwliah Limited Company**
- » Location **Baqaiq Quraya, Saudi Arabia**

## Task at Hand

The Jafurah Desalination Project (JFD) is a major infrastructure development supporting the rapidly expanding Jafurah gas field. The project includes a seawater desalination plant with a daily production capacity of 80,000 m<sup>3</sup>, along with 200 km of transmission pipelines forming a strategic component of Saudi Arabia's long-term water and energy development plans.



The facility's primary role is to supply desalinated water to the Jafurah gas field development facilities, requiring highly durable protective systems capable of performing under harsh environmental conditions.

## Project Requirement

The project faced strict timeline constraints, operating as a one year fast-track development. The technical requirements were particularly demanding for the seawater tanks, which serve as critical components of the desalination process.

These structures required a coating system capable of withstanding aggressive marine exposure, high humidity, elevated temperatures, and continuous contact with salt water and potential chemical contaminants.

To ensure long-term performance, the specified solution needed to deliver exceptional chemical resistance, durable waterproofing, and structural integrity across a total surface area of 63,000 m<sup>2</sup>.



## DCP Solution

DCP successfully delivered a high-performance protective system providing a seamless and durable finish tailored to the demanding conditions of desalination infrastructure.

### Surface Repair & Preparation - Quickmast 341

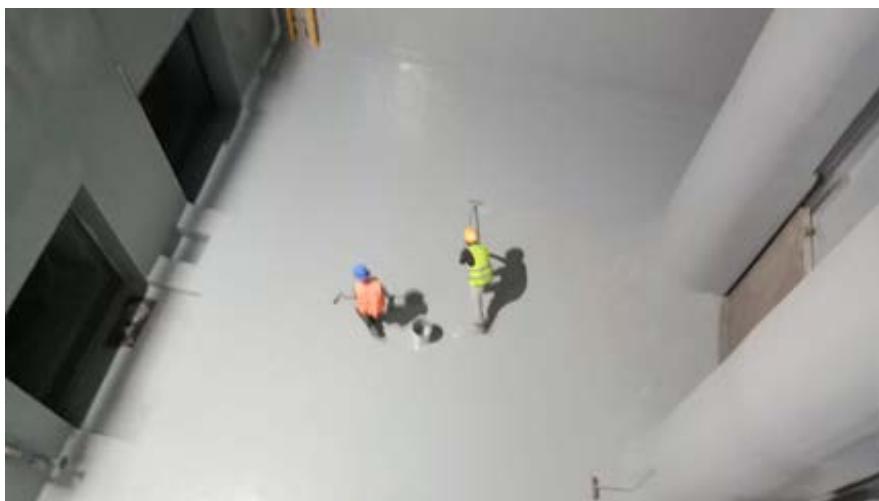
Seawater tank surfaces contained blowholes, irregularities, and minor defects that required remediation to ensure a sound substrate before coating. These areas were treated with **Quickmast 341**, a high-strength, solvent-free epoxy repair paste whose thixotropic nature makes it ideal for vertical and overhead applications.



**Quickmast 341** enabled effective filling of blowholes and surface imperfections, creating a smooth and uniform substrate essential for achieving optimal adhesion and long-term coating performance.

### Protective Coating System - Strongcoat EPW

For the primary protection of the seawater tanks, DCP supplied **Strongcoat EPW**, a high-build, solvent-free epoxy polysulphide coating engineered for environments exposed to seawater and aggressive chemicals. Its excellent flexibility allows it to bridge cracks up to 1 mm, maintaining the integrity of the waterproofing membrane even under structural movement.



## DCP Solution

The system produces a seamless, glossy, glass-like surface that is easy to clean and resistant to abrasion, making it the ideal choice for the heavy-duty protection required by the Jafurah project.



DCP's contribution to the Jafurah Desalination Project was instrumental in ensuring the long-term performance and durability of its critical seawater-handling structures. By integrating the advanced protective capabilities of **Strongcoat EPW** with the high-strength repair performance of **Quickmast 341**, DCP delivered a comprehensive solution capable of withstanding the demanding chemical, mechanical, and environmental conditions inherent to desalination operations.

The system met all stringent technical requirements while supporting the fast-track construction program, enabling efficient application across 63,000 m<sup>2</sup> of concrete surfaces and ensuring lasting reliability for one of Saudi Arabia's key industrial projects.



### » Quantities Supplied

**Quickmast 341**  
**Strongcoat EPW**

**10,000 sets (5 kg)**  
**1,700 sets (30 kg)**