

Prill Tower, Qatar – Carbon Fibre Strengthening in the Middle East



Prill tower: before and with access scaffold



Pultruded plate is supplied in coils



CFRP application to tower surfaces



External plate detail



Stair tower detail

Balvac plays full role in ensuring pioneering carbon fibre plate strengthening scheme is successfully installed during a short shut down at busy fertiliser plant

Client	Qatar Fertiliser Company (QAFCO)
Consultant	Mouchel
Principal Contractor	Apollo Enterprises
Specialist Contractor	Balvac
Value	£103,000
Completion	April 2001

The strengthening of the Prill Tower at QAFCO's Masaeid chemical plant 20kms from Doha, the capital of Qatar, was carried out in a rare shut down period for the 24 hours-a-day process plant.

The 50 metre high reinforced concrete tower required hoop strengthening and the designed solution was to bond pultruded unidirectional carbon fibre plates (CFRP), at close centres over the majority of the height of the tower. The works were part of a programme of repair and refurbishment works to the inside and outside of the tower, required to extend its working life.

Daytime temperatures in Qatar reach a maximum of 40°C and at night-time temperatures fall to around 10°C. The technically demanding project required input from Balvac at the design stage to ensure the buildability of the solution. This expertise was carried forward onto site for the installation of the CFRP plates.

The selection of Balvac for the project was made through a process involving the client and project team visiting a Balvac project in the UK and development meetings on site in Qatar ensuring that all members of the team understood the complexities of the project.

Over 3kms of CFRP plate were installed in 85 bands, with individual plates being over 10m long. The shut down works were completed within the tight programme allowing valuable production to commence four days ahead of schedule.

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