

BELZONA SOLUTIONS FOR GAS TURBINE AIR INTAKE ROOF REPAIR

ID: 9745



PROBLEM

The power station's gas turbine (GT) air intake roof is experiencing severe corrosion due to prolonged exposure to atmospheric moisture, humidity, and environmental contaminants. Over time, this has caused significant material deterioration, leading to the formation of holes in the structure. These defects weaken the roof's structural integrity, posing safety risks, increasing maintenance costs, and reducing operational efficiency. If not addressed, the ongoing corrosion could result in further damage, necessitating expensive repairs or even a complete roof replacement.

APPLICATION SITUATION

To repair and safeguard the gas turbine (GT) air intake roof, a durable, corrosion-resistant, and weatherproof coating system is essential. A suitable Belzona solution may be recommended. By leveraging Belzona's advanced composite materials and protective coatings, gas turbine air intake systems can benefit from increased reliability, an extended operational lifespan, and lower maintenance costs.

APPLICATION METHOD

The application was conducted in accordance with Belzona Know-How System Leaflet TCC-3 and SOS-02. After thorough cleaning, surface preparation was performed using hand abrasion to ensure optimal adhesion. A repair plate was then cold-bonded over the perforations using Belzona 1161. Finally, the entire repaired area was coated with Belzona 5831 and Belzona 5811, ensuring long-term protection.

BELZONA FACTS

Belzona 1161, Surface-tolerant epoxy, used for metal repair, corrosion protection.

Belzona 5831, Epoxy coating for wet and submerged surfaces, provides long-term corrosion and chemical resistance & ideal for marine, offshore, and water industry applications.

Belzona 5811, Epoxy coating for immersion and chemical exposure, protects tanks, pipes, and concrete structures, high resistance to water, chemicals, and corrosion.

INDUSTRY

Power

LOCATION

ABU DHABI, UNITED ARAB EMIRATES

APPLICATION DATE

January 2025

PRODUCTS

Belzona 1161 (Super UW-Metal)
Belzona 5811 (Immersion Grade)
Belzona 5831 (ST-Barrier)

SUBSTRATE

Carbon steel

PHOTOS

1. Gas Turbine (GT) air intake roof is experiencing severe corrosion due to prolonged exposure to atmospheric moisture, humidity, and environmental contaminants.
2. Surface preparation was performed using hand abrasion to ensure optimal adhesion.
3. Repair plates was then cold-bonded over the perforations using Belzona 1161.
4. Entire repaired area was coated with Belzona 5831 and Belzona 5811, ensuring long-term protection.

For more examples of Belzona Know-How in Action, please visit khia.belzona.com

Belzona products are manufactured
under an ISO 9001 Registered
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