

# Emergency Seawater Butterfly Valves Application Using Belzona SuperWrap II

II

ID: 9274

Industry:	Power	Customer Location:	Tunisia
Application:	VPF-Valves, Pipes and Fittings	Application Date:	November 2022
Substrate:	Stainless-steel		
Products:	Belzona 1161 (Super UW-Metal), Belzona 1982 (SuperWrap II), Belzona 2211 (MP Hi-Build Elastomer), Belzona 2911 (Elastomer QD Conditioner), Belzona 9111 (Cleaner Degreaser)		

## Problem

Two 72-inch seawater butterfly valves were severely damaged by cavitation, with one suffering from through wall defects. The seawater flow is 50,000 m<sup>3</sup>/h, density 1.04 g/cm, salinity 38.9 PSU, and the pipeline's vibration at the power plant STEG measures 10 mm/s for a 78-inch conduit. This issue arose nine months after the plant's start, detected as a leak in a valve. The installer intended to fix it via hot welding, but the client insisted on repairing it with Belzona to address concerns.



A wider view of the power plant



The location of the butterfly valve



The completed application



The completed application

## Application Situation

The intervention began in November 2022. A follow up with the maintenance head in October 2023 confirmed their high satisfaction with the excellent condition of both repaired valves.

## Application Method

The proposed Belzona solution involved surface preparation by sandblasting inside, degreasing with Belzona 9111, repairing holes using Belzona 1161 and Belzona 9341, in addition to metal patches.

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Surface treatment included applying Belzona 2911 conditioner (8 boxes) and a layer of Belzona 2211 (45 boxes) over a 60x150 cm area. For the exterior, Belzona 1161 and Belzona 9341 covered the prepared surface (60x150 cm), followed by a patch using Belzona Superwrap II. The total Belzona used included Belzona 9111 (12 boxes), 1161 (107 kg), 9341 (40 m), 9341 (42 m), and Belzona 1982 (9 litres). Application involved 2 wraps and took 12 days with a team of 3.

## Belzona Facts

The total cost for the entire operation amounted to 25,000 €, of which 20,000 € was product costs. This was an urgent and exceptional application due to being part of a new installation after nine months. Recent confirmation from the maintenance head, known since 2003, verified the outstanding condition of both repairs. Photos sent in October 2023 supported this positive assessment.

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