

BELZONA FORMS THE FACES OF 132 SEA WATER FLANGES

CUSTOMER

Petrochemical Plant, Saudi Arabia

APPLICATION DATE

2018

APPLICATION SITUATION

132 Class 150 - 14", 24", 26", 30", 40" & 48" pipe line flanges operating at 7 to 8 bar

PROBLEM

A new utility sea water cooling facility was commissioned 1 year ago for this plant. Already, the effects of sea water were leading to crevice corrosion on many diameters of pipe line flanges. This was leading to worn out serrations and severe damages on the seating faces. Existing fusion bonded epoxy coating failure inside the spools was due to sea water penetration and pitting corrosion on the edges of spool. Leakages observed through various flange faces and weld seams were leading to intermittent shutdowns.

PRODUCTS

Belzona 1111 (Super Metal)

Belzona 1391T

SUBSTRATE

Steel

APPLICATION METHOD

The flanges were formed in accordance with VPF-17

BELZONA FACTS

The customer has been using Belzona solutions for various maintenance problems before being introduced to flange face forming during a technical presentation. They then first used the "Flange face forming technique" in December 2017 for 25 48" and 40" flange faces. Due to the successful performance of Belzona formed flanges, the plant specified Belzona forming technique for all 132 damaged flanges during their recent shutdown in November 2018. Competitors tried to copy the forming technique but were ultimately unsuccessful.

PICTURES

1. Sea water leaking through the flanges
2. Flange damage on the edges
3. Application of Belzona 1111 on the flange to form peaks
4. Completed application of a 48" flange



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