

FORMING FLAT FLANGE FACES ON A VENTURI WITH BELZONA

ID: 5371



PROBLEM

Sulphuric acid solution is fed through spray nozzles into a large venturi, where it mixes with zinc oxide dust (calcine). The venturi is lined with rubber, brick, and graphite. Acid solution has damaged the rubber liner where it extends onto the flange surfaces where the nozzles are seated. All 10 flanges needed a flat gasket surface formed.

APPLICATION SITUATION

Flanges on a large venturi

APPLICATION METHOD

Belzona 2111 is applied to the prepared and conditioned surface; Belzona 2121 is applied to a flat metal forming plate (already coated with Belzona 9411), and this plate is clamped into position with plugs inserted into bolt holes. When the plate is later removed, a perfectly flat gasket surface remains. The application was carried out in accordance with Belzona Know-How System Leaflet GSS-1.

BELZONA FACTS

This application was specified due to excellent results of a trial application 2 years previously on this unit, which led to full rebuilds of all 10 flanges on the neighbouring unit the following year as well as this rebuild. Problematic acid leakage has been completely eliminated. Note that all of the steel flanges on both units have also been previously repaired with Belzona 1111.

INDUSTRY

General Industry

LOCATION

British Columbia, CA

APPLICATION DATE

July 2014

PRODUCTS

Belzona 2111 (D&A Hi-Build Elastomer)
Belzona 2121 (D&A Hi-Coat Elastomer)
Belzona 2911 (QD Conditioner)
Belzona 9411 (Release Agent)

SUBSTRATE

Rubber, graphite, steel

PHOTOS

1. Flange on neighbouring unit in service; one year after rebuild, there is zero leakage in any of the 10 repaired flanges. Note the catch basin under the flange; the Belzona repair has made these redundant and they are being removed. Original trial flange is still in excellent condition after two years in service.
2. Forming plate clamped in place, with plastic pipe used to form bolt holes.
3. Perfectly flat rebuilt surface seats the gasket properly and does not leak.

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Belzona products are manufactured under an ISO 9001 Registered Quality Management System.

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