

Bonding of 325mm Steel Pipe into 500mm thick Concrete Wall with Belzona 1212

ID: 9728

Industry: Pulp & Paper
Application: CEP-Centrifugal Pumps
Substrate: Carbon steel
Products: Belzona 1212

Customer Location: Felixton - Northern KZN
Application Date: January 2025

Problem

A central return line for three centrifugal pumps was required to reduce the turbulence within the piping system. In order to install this 325mm OD pipe back into the Pulp Chest, we had to diamond drill a 350mm hole x 500mm thick through the chest wall. Once done, we sealed the entire inside as well as both ends with Belzona 1212 and we were pressed for time on a one day shut



350mm Diamond Tip Core Drilling 500mm thick through the Pulp chest Wall - 50mm Re Bar inside . The core drilling took 8 hours alone.

Belzona 1212 was selected to seal and bond the 325mm OD steel pipe into the chest wall as we only had 12 hours on the shut.

325mm Inside Return line located inside the Pulp chest

325mm Outside Return line located outside the Pulp chest. From here an expansion joint was installed and the pipe was coupled into the common pump pipeline.

Application Situation

As this was a new pipe installation our only criteria was time itself. The plant was off line for 12 hours so we had to maximise our time by using the Belzona 1212 which was fully hard and ready to be in use within 1.5 hours due to the high heat here. The plant standing time alone is R250 000-00 per hour.

Application Method

The pipe and internal of the concrete wall was cleaned with solvent to save time. The Belzona was mixed and applied simultaneously by 4 men using spatulas to quickly and effectively applied the Belzona 1212 before it cured. Once done, the pipe was inserted into the wall and both ends were sealed off using the Belzona 1212

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FS 695214
ISO 14001:2015
EMS 695213

Belzona products are manufactured under an ISO 9000 Registered Quality Management System.

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Belzona Facts

The standing time for our clients plant is R250000-00 per hour so a quick repair was very beneficial to the client.

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