Wet pulp screw conveyor suffering from localised erosion

ID: 9865

Industry: Food & Drink Customer Location: Kings Lynn Application: SHM-Solids Handling Machinery Application Date: July 2025

Substrate: Stainless-steel

Products: Belzona 1311 (Ceramic R-Metal), Belzona 1391T

Problem

Customer has a Wet Pulp Screw Conveyor with localised areas of erosion and scoring. These defects were causing process issues and preventing the conveyor from operating at its optimum capacity









Wet pulp screw conveyor was suffering from localised erosion repair, cleaning the area with and scoring

work commenced on in situ power tools

Cleaned areas exposed surface Finishing with two coats of areas that required rebuilding 1391(T), Belzona solution with Belzona 1311

Application Situation

The three areas of concern were located on the shaft only, affecting three separate sections between the screw flights. The total repair area was estimated to be approximately 2m².

Customer requested that the screw remains in position and worked on in situ. To carry this out, the equipment needed to be safely isolated but free to rotate in order to aid surface preparation and application

Application Method

To limit disruption, the application areas were prepared using power tools only. Once prepared, the areas were thoroughly cleaned

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ISO 9001:2015 FS 695214 manufactured under an ISO ISO 14001:2015 9000 Registered Quality EMS 695213 Management System.

and rendered dust-free. Any sections showing loss of profile were rebuilt back to standard using Belzona 1311, a two-component repair composite.

Following this, the full circumferential repair areas were reinforced using Belzona 1311 and Belzona 9341 Reinforcement Sheet, applied using a 50/50 overlap system and left to stabilise overnight.

On the following morning, the repaired areas were inspected and dressed back before receiving two coats of Belzona 1391T.

Belzona Facts

If the erosion issue had not been resolved, this would have resulted in needing to replace the screw conveyor, causing lengthy downtime and costly replacement. Belzona's solution provided additional protection and improved the asset's life expectancy.

