

Abrasion protection for sludge screw conveyor

ID: 8844

Industry: Water / Wastewater
Application: SHM-Solids Handling Machinery

Customer Location: Glasgow, Scotland
Application Date: June 2022

Substrate: Carbon Steel
Products: * Belzona 1812 (Ceramic Carbide FP) ,

Problem

The bare steel had a short life expectancy in service. The sludge being transported by this screw was not only highly abrasive but also corrosive - these corrosive conditions would shorten the life of many abrasion resistant metal overlays.



Photograph Descriptions

- * 1 - Screw conveyor before ,
- * 2 - Screw during application ,
- * 3 - Belzona 1812 close up ,
- * 4 - Belzona 1812 close up ,

Application Situation

A screw conveyor transporting waste sludge was suffering from abrasion & corrosion in service. A new screw conveyor was fabricated - heavy abrasion & corrosion resistance were required to extend its service life.

Application Method

The screw conveyor was first grit blasted to SA 2.5 cleanliness & 75 microns profile. The Belzona 1812 (Ceramic Carbide FP) was then built up on the drive flights & the shaft body.

This was applied in accordance with Belzona system leaflet SHM-14.

Belzona Facts

By lining these screw conveyors with Belzona 1812 the life of the screw conveyor is greatly extended.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

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