

# 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.

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

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