

Belzona 1812 Coatings

Pump: Screw Feeder

Industry: Power Station

Medium: Fuel Chips

PSRG has recently undertaken repair work on a screw feeder used on a thermal drying plant on behalf of a Utility company providing renewable fuel chips to a coal fired Power Station in Scotland. The effluent is highly abrasive and was wearing the vanes on the screw.



Prior to coating

- The product handling side of the vanes were worn due to erosion and corrosion
- After assessing the item at site it was decided that applying Belzona 1812 carbide to the product handling side of the blade and shaft offered protection against further wear
- Belzona 1812 material is a highly specialised composite combining extremely hard closely packed abrasion resistant materials in a polymeric binder to resist future abrasive attack.
- On receipt of the screw feeder it was installed into our in house grit blast booth. The product handling side of the vanes were grit blasted and then treated with chemicals to with draw impurities from the steel and levels were then checked. The component was then final blasted to a specification SA2 ½ @ 75 microns to ensure optimum surface cleanliness and profile
- The blasted areas of the vane and shaft were then coated at a thickness of 3mm with Belzona 1812 carbide by a team of trained applicators



During application



Area of vanes coated



- The component was then spray painted with hammerite paint and transported back to site

A programme of recovery is now being undertaken on all other screws.



Finished component being loaded back to site

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