CORROSERVE
ENGINEERING LONGEVITY

Refurbishment of 6 off Cooling Fan Blades

Job no: CS21 170

Client

Energy Recovery Facility, UK.

Scope of work

The client requested the inspection, repair and coating of 6 off GRP Air Cooled Condenser fan blades. Upon inspection the fan blades had become severely eroded on the leading edge and tips due to impacts and turbulence, fatigue stress cracks were also identified along the main body. If left, this would lead to other detrimental effects and severe disruption to performance.

The team were able to provide a full solution to refurbish the fan blades. The external coating was removed along with compromised outer shell. The structure was then reinforced and rebuilt and the external shell rebuilt. The blades were balanced before the externals were coated with VEF to prolong the service life and the leading edges reinforced to withstand impacts. All the cooling fan blades were repaired at a fraction of the cost of replacement and lead time from original equipment manufacturer.

Product

Polyglass VEF.

Coating procedure

1. Checked balance, recorded results.
2. Abrasive blasted the substrate suitably preparing the surface for coating, removing all surface contaminants, loose material, surface laitance or weak frangible material.
3. Identified any pitting/ damaged areas and reinforced with quad axial matting and L600 laminating resin.
4. Applied Polyglass VEF to achieve a DFT (Dry Film Thickness) of 800 microns.
5. Checked balance and correct if required.
6. Packed for despatch

Coating credentials

Polyglass VEF is a glass flake vinyl ester acrylic co-polymer. Excellent in immersed environments, with excellent resistance to solvents, acids and de-mineralised water.

Polyglass VEF also has excellent flexibility, undercutting resistance and sliding abrasion resistance.