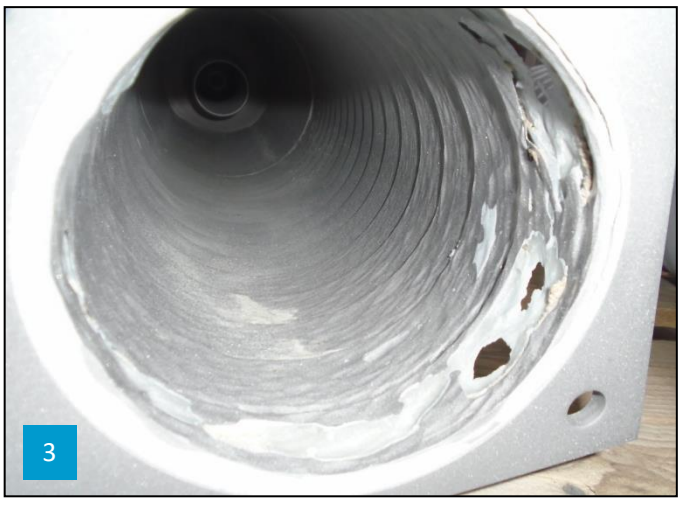
ABRASION PROTECTION PAPER MILL CYCLONES

CORROCOAT



A19 014

Protection from Abrasion

A pressure cyclone is designed to separate steam from the pulp in a paper or card manufacturing plant. The pulp itself coupled with high temperatures and chemical content produces a very aggressive corrosive and abrasive environment.

Two cyclones were delivered to our workshop in Leeds in need of a programme of repair and onward protection against abrasion. Both cyclones were suffering from severe abrasion damage and both exhibited through wall defects.

The paper plant operators wanted to protect against future damage, and the resulting expensive downtime, and a significant increase in service lifetime was also required.

Corrocoat recommended that after being abrasive blasted to Sa2½ the internal surface be repaired and reinforced using wetted out 300gsm glass fibre matting. After initial cure multiple coats of Plasmet HTE were applied to both internal and external surfaces to reach a required DFT of 2000 microns.

Plasmet HTE

Plasmet HTE is a viscous, solvent free, amine cured epoxy, containing both stainless steel flakes, glass flakes and silicon carbide. The specialist coating provides excellent abrasion (and chemical) resistance.

1: On arrival at workshops. 2: Through wall abrasion damage. 3: Internal view of abrasion damage post abrasive blasting.

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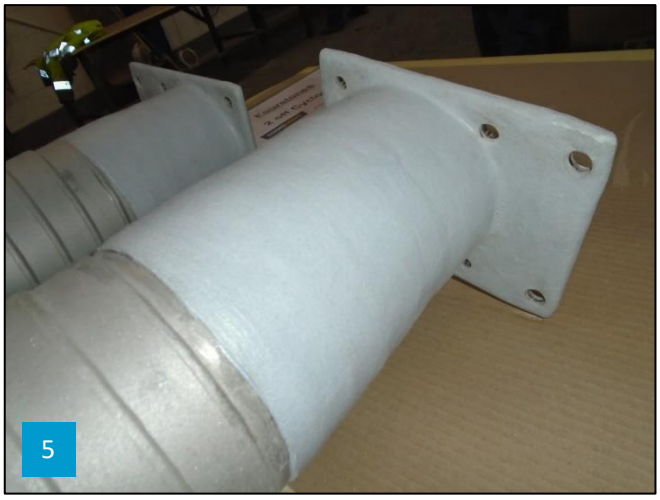
CSR and HTE

Plasmet HTE material has been used in cyclones, chemical process vessels, sugar beet pulping drums etc. It is also useful for building up damaged areas of pump impellers and casings where impact or abrasion, are prevalent. The coating has good temperature resistance; Immersed conditions - 135°C. Non-immersed conditions - 170°C.

Plasmet HTE in conjunction with composite structural repair techniques will ensure the cyclones will have an increased service life and much greater protection against abrasion.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Industry	Paper manufacture
Environment	Abrasive, chemical
Plant Coated	Cyclone
Preparation	**Sa2½, profile 50µm**
Coating	**CSR, Plasmet HTE**
Application	**Brush**
DFT	**2000µm**
QA	**Thickness & spark testing**

4: CSR repair. 5: Coated with Plasmet HTE.
6: Internal coating. 7: Completed cyclones.

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